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also contributed to a reduction in the spread of viruses, particularly as the cattle are generally kept away from these courtyards fronting the houses.

The ecological significance of these various beliefs and practices is that as the Nilgiri population increased in the nineteenth century and some village streams began to be polluted by this new pressure, the Badagas managed to avoid some contamination by switching from drinking stream water and fresh milk to tea, coffee and sometimes alcohol, all of which would be relatively free of bacterial organisms. The new balance with the environment that this change brought about was certainly one factor in the remarkable increase in the Badaga population ever since the advent of the British (Diagram 1).

At the same time that this change in drinking habits was occurring their eating habits were undergoing an equally radical transformation. In part this was due to the several dozen types of fruit, grain and vegetable introduced from Europe by British settlers and adopted by most Badagas (2.1, Table 2; Hockings 1973: 867). The variety of their diet was thus greatly improved. Also the earlier habit of eating a midday meal, often in open air (Harkness 1832: 111), tended to cease as more and more Badaga adults began working for an hourly or daily wage on the plantations and construction projects initiated by the British, and as increasing numbers of children spent the day in school. In the later nineteenth and early twentieth centuries it thus became usual for Badagas to consume only two meals a day, generally in their own homes, one at sunrise and the other in the evening. The importance of this practice from a hygienic viewpoint was that, because flies are normally active only during daytime, "eating at night or in the early morning may protect food from fly-borne contamination" (Alland 1970: 59). Any change of diet or of custom that tended to reduce the human intake of bacterial organisms was reflected in the greatly increased life expectancy during the past century and a half.

1.8. By the later nineteenth and the twentieth centuries successful exploration of the botanical realm and this steadily increasing Badaga population had, through a process of interaction and by individual experiments, observations of animal browsing, or other acts of discovery about which we can know nothing, developed the third phase in their medical history — the full-fledged therapeutic system described in this book. As an increasingly heavy work-load was

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As an increasingly heavy work-load was placed on the therapists more women entered the craft; and more reliance was placed on Western medicine too. Today the scientific medicine of the public health department, and of government and mission hospitals, is making serious assaults on the faith that Badagas formerly had in their own herbal therapy, and is helping the population to expand at what must be considered an alarming rate (Diagram 1). The traditional therapy was adaptive, indeed crucial, for ancient Badagas trying to gain a foothold in a strange environ-

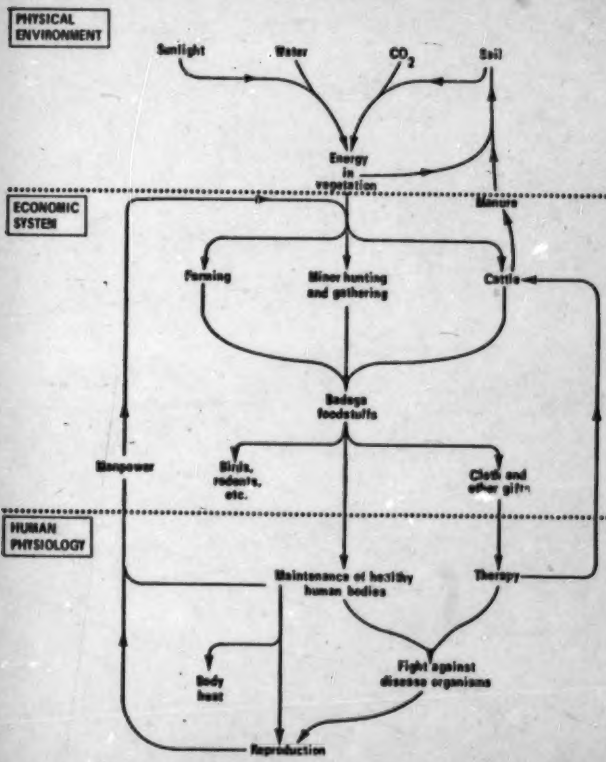

Diagram 2 : A simple model for energy flow in the Badaga ecological system

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ment. Today that environment has changed so much socially, economically and intellectually that the old therapeutic system is becoming an anachronism. This change is not simply attributable to the fact that scientific medicine is viewed as "better" in any objective sense. The number of Badagas who die either in hospitals or after being brought home (often prematurely) from them is sufficient to bolster a suspicion to the contrary. Nonetheless scientific medicine has now become the medicine of the urban middle classes in the Nilgiris, many of whom are professionals and are taken as a positive reference group by the rest of the community in these matters. The most progressive of Badagas are already finding their place in the broader urban culture of modern South India; and in this context reliance on an antiquated, indigenous therapeutic system is seen by increasing numbers as an embarrassing reminder of the primitive past. Despite the greater cost that may be involved, many Badagas now patronize Badaga doctors with degrees in scientific medicine. Since these doctors are pillars of the local urban middle class, support of them may be seen as evidence of class emulation on the part of Badaga peasants.

1.9. The simple model shown in Diagram 2 indicates some major ecological relationships in Badaga culture, the basic flow of energy, and the role of therapy in helping maintain this system.

The etic reality of these energy relationships is indisputable: only a brief survey of the ethnographic descriptions of the Badagas would demonstrate this. Yet the Badagas' own point of view on the business of living colours these relationships with the particular characteristics of a particular culture, and the recording of that emic viewpoint is essential for a fuller understanding of the culture and its therapeutics. I find myself in agreement with Frake that one

> must discover those features of objects and events which they regard as significant for defining concepts, formulating propositions, and making decisions. This conception of an ethnography requires that the units by which the data of observation are segmented, ordered, and interrelated be delimited and defined according to contrasts inherent in the data themselves and not according to a priori notions of pertinent descriptive categories. (Frake 1962 : 54)

In line with this valuable prescription, I will present in this study an

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emic description of Badaga therapeutics insofar as the data permit, stepping outside that position to present etic observations only in the next chapter and the final two chapters where death and the organization of therapy are considered. The emic account is still quite partial, since it relies only on information from the therapists and other specialists, and does not show what the patients and their relatives think of illness episodes.

The Formulation and Spread of Medical Knowledge

1.10. Those familiar with the Ayurvedic and Sidda medical systems in India will doubtless wonder to what extent Badaga medicine is either derived from them or analogous to them. This is a question of some importance, yet the evidence does not support a connection. Of over 120 species which Badagas use therapeutically, only 49 are mentioned in the generally exhaustive, four-volume compendium, *Indian Medical Plants* (Kirtikar, Basu *et al.*, 1933). An examination of the entries for those 49 species reveals that in almost every instance they are used for quite different types of therapy in Ayurveda than I have found they are in Badaga medicine. It must be realized that each of the 49 species is said to be useful in perhaps a dozen or so Ayurvedic cures; yet only six of these species had a role in *any* comparable Badaga treatment: namely for cough, melanoma, eczema, piles, ulcers, and the improvement of a child's appetite. Some species (e.g. black pepper) are "hot" in the Ayurvedic system but cooling in the Badaga one, or heating in the one (e.g. fenugreek) but neutral in the other (2.1, Table 2). The opium poppy is constipating in Ayurvedic medicine (Kirtikar, Basu *et al.*, 1933: I, 126), but *relieves* constipation in Badaga practice (6.55). We may also note that none of the Badagas' ailments or cures bears a Sanskrit name.

The Badagas do not think of Ayurvedic medicine as their own, nor do they view it as particularly effective. In 1963 I interviewed a random sample of 301 Badaga males and 119 Badaga females (all adult) from a wide range of villages. Table 1 shows their responses to the question, "Do you think that Ayurvedic doctors can cure all diseases?"

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Table 1. Attitudes Towards Ayurvedic Medicine

	Males	*Females*
"can cure any disease"	18.6%	14.3%
"occasionally may succeed"	25.2%	21.0%
"no: Western medicine is better"	2.7%	5.0%
unascertainable answers	53.5%	59.6%
	($N = 301$)	($N = 119$)

What these figures show is that only about a third of the respondents reported any faith in Ayurvedic medicine, and men expressed somewhat more confidence in it than women. On this question we do find a remarkably high level of non-response: people saying "I don't know" or not understanding the question. Their problem was that they were not all familiar with the sanskritic term *Ayurveda*. (The very low level of confidence in Western medicine is also notable.) In the light of these facts let us therefore proceed to examine how the Nilgiri medicaments are used, and how medical knowledge has been formulated by Badagas, without making any further reference to Ayurveda, since it is clearly a foreign system to them.

1.11. If recognized ailment X can be treated by herbs A and B, and recognized ailment Y is treated by herbs A, B and C, the different combination of herbs underlines that X is conceptually a separate ailment from Y. But what if A is the only pharmacologically active ingredient in either medicine? If it in fact has the same effect on both maladies, possibly they are one and the same from a scientific viewpoint: thus X = Y. If such equivalences in Badaga therapeutics could be identified, they would perhaps lead to a somewhat briefer roster of treatment. Why the present larger roster?

I think there are two reasons. One is that having a wider range of diagnoses and cures fosters the impression that therapists are in fuller control of illness, a topic to which we must return later (10.21). All therapy, we will suggest, incorporates an element of ritual and functions to reduce anxiety by it. If this is granted, then it follows that the more illnesses can be identified, the greater are the opportunities for reducing anxiety and fear in patients; whereas a minimal number of treatments could raise some doubts about whether therapy was worthwhile in a particular case.

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1.12. It is thus arguable whether the Badagas really have any medical *system*, if by this we mean a single coherent set of rules for handling episodes of sickness; for their therapeutic knowledge does not appear to be systematized, at least by their own account, and neither textbooks nor colleges are involved in its transmission. The young learn to be midwives and therapists and veterinarians by watching the old at work and sometimes asking questions. In this work the pragmatic act of diagnosis appears to be much more important than any general theory of the causation of disease, with the consequence that when a particular cure fails to yield results a new diagnosis of the symptoms is often attempted. This seeming lack of systematization arises from the idiosyncratic nature of the cures that different therapists try, and is reflected in the fact that the various medicines (*kasaiya*, "mixture") have no specific names, even though they obviously must vary greatly according to the diagnosis.

Badaga therapeutics must be regarded as an art rather than as the science that Western medicine has become. In any such folk society healing is a creative process as much as it is the application of accumulated traditional knowledge. It seems likely that Badaga therapeutics has survived and developed successfully *because* of the idiosyncratic practices of the healers. Individuals have 'become famous for particular cures, and persistence of the whole "system" has depended on the reputations of the successful few.

All knowledge has been learnt differentially, and Badaga medical knowledge has been passed on from generation to generation only with a certain amount of misinformation, false identification of plants and symptoms, and local variation in practice (cf. Diagram 3). A systematization of the entirety of Badaga therapeutic knowledge does not exist—or did not, till the writing of this book—and, as Sir E.E. Evans-Pritchard suggested for Zande magic, only parts of the available medical knowledge are recalled for explanation and curing by either the therapists or their patients. Thus in his Zande case:

> I am aware that my account of Zande magic suffers from lack of co-ordination. So does Zande magic. Magical rites do not form an interrelated system, and there is no nexus between one rite and another. Each is an isolated activity, so that they cannot all be described in an ordered account. . . In real life they do not

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> function as a whole but in bits. A man in one situation utilizes what in the beliefs are convenient to him and pays no attention to other elements which he might use in different situations. Hence a single event may evoke a number of different and contradictory beliefs among different persons. (Evans-Pritchard 1937: 540)

Much the same thing could be said of Badaga medicine. It is much more of a craft than a science, a fact that Weber recognized long ago as characterizing Indian therapy in general: "Medicine...in India, though highly developed in empirical technique, lacked a biological and particularly a biochemical foundation" (1930: 14).

The very fact that Badaga therapy has some of the characteristics of an art allows each therapist to elaborate the system in her own creative way wherever she sees a benefit in doing so. This brings us to a most important theoretical topic that should be central to all anthropological writing on cultural change, but curiously has not been: namely the role of women in cultural change. What seems like a conspiracy of silence on the subject has come about because of a greater concentration on processes than on personnel. Redfield, Kroeber, and many of their students have concerned themselves with such topics as innovation, diffusion, assimilation, acculturation, and so on, but have for the most part left the impression that these were realms of male activity. Such a misconception arose from a simplistic view of the role of women in alien societies. Indeed, in many of the societies studied it was difficult for male anthropologists to conduct extensive interviews with female informants: the view of female roles was thus to some extent a paraphrase of what male informants within the society saw those female roles to be.... And of course they were commonly stated to be woman as mother, woman as housekeeper, woman as trader, woman as agriculturist; more rarely, woman as politician or as lover. But woman as disciplinarian, poet, philosopher or innovator were topics scarcely ever touched in the cultural change literature. In the Badaga case it seems likely that while men did innovate in such areas as ritual and animal husbandry, women were commonly the innovators in therapy and midwifery, while both sexes probably had a role to play in the extensive agricultural and social innovations that followed upon their settlement on the Nilgiris.

1.13. For convenience we will now summarize very briefly the range of therapeutic practices that are to be described below in Chapters 5-8.

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mouth (e.g. black pepper) are considered cooling by Badagas. Furthermore milk is somewhat heating, whereas buttermilk is cooling. Especially curious is the case of the hill gooseberry, which is a cooling food but is treated as heating because "it has many small seeds inside which dry in the bowels and so cause constipation." The best subjective explanation that I have been able to provide for the Badaga categorization is that the heating foods may be more indigestible than others, and hence have a greater tendency to cause heartburn. This is not however what informants told me, and I hesitate to venture the idea.

Preparation of Food

2.2. Badaga cuisine has two aspects to it: one is the preparation of a meal, the second is the preservation of food for its future use.

While Badagas do not have ovens, they have a variety of cooking techniques. A large pot with a rack fitted inside can be used like an oven for baking. Frying, boiling and roasting are the other cooking techniques. (One simple example of a delicacy made from the leaves of cabbage or prince's feather is as follows. The leaves are cut up fine and boiled in water; the water is then drained off. Oil or clarified butter is heated in another pot with onion, mustard and chili. These are cooked until they smell good, then the boiled leaves are added.)

Boiled rice and, until very recently, several millets, form the staple of each Badaga meal. A meal is not considered complete without a curry, however, to be eaten with the rice or millet. This is a vegetable curry more often than not, since even the meat-eaters who make up the great majority of the Badaga population are not able to have meat at every meal. A Badaga proverb reminds us, "If there is no taste in the sauce, will there be taste in the [curry] pieces?" Milk makes the food richer: "If the milk [in cooking is too] much, will the food be spoiled?"—obviously not. Butter is not recommended, however, because it may attack the lungs with "cold" unless it is first clarified by heating.

Eggs, less commonly cooked than mutton, are boiled, fried, or made into omelettes. Some people now eat them raw. Fish is rarely cooked by Badagas, largely because they dislike the smell and are afraid of the bones. (A fish-bone is dislodged from the throat by swallowing balls of boiled rice.) Badagas like their meat hot and peppery

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Badagas typically eat twice daily, once in the morning around eight o'clock and then again in the evening (Gaymard 1924: 3).[1] Each meal consists usually of two courses, the first being a curry, probably of vegetables, eaten with rice or millet. The second course, providing a third of the bulk of the meal, is curd or buttermilk. Usually with this latter course people eat a teaspoonful or so of hot lime relish, made with limes, chilies and salt. Despite the ground chilies it is "neutral" in its heating effect, and is said to dispel a disease characterized by dizziness, nausea and vomiting. At other times of the day Badagas "drink coffee, which because of the cold climate is a necessity for them and not a luxury" (Vivekanandam Pillai 1937: 247). The tedium of these meals is relieved by occasional sweets made from crude sugar, honey, or high-quality millets. Fruits are always appreciated too: "Who died by eating a jackfruit? Who expanded by eating a banana?"

The usual meal and its preparation have been described in these terms:

> The women pound regularly every day in their mortars of stone... a kind of millet, which forms the basis of the daily alimentation. The grain thus decorticated is boiled and served. They sit down on the floor...and...with the fingers of the right hand they crush these boiled grains and dip them in a sauce mostly composed of pepper, mustard and coriander; of this spiced mixture they make little balls of which they consume a number according to their appetite.
>
> Sometimes the housewives prepare cakes of cornflour boiled and mixed with honey and milk. Butter is used for seasoning (Tignous 1911: 116-17).

In most Badaga homes each Monday, the weekly holiday, and in the more well-to-do ones on both Mondays and Fridays, a woman should not cook ordinary green vegetables for the curry but make a richer meal, using beans and peas and, if non-vegetarian, some meat for the dish. A similarly rich dish should be prepared for a

[1]Readers who may be confused by my apparent use of an "ethnographic present" here and throughout the book should know that *if I put a statement in the present tense it is to the best of my knowledge currently valid, and if I follow it with a citation date, such as 1924, it was also noted at that time.*

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Bestiality is an even rarer phenomenon than homosexuality. The only instances that were reported to me were, first, the curing of a venereal disease by intercourse with a donkey (6.61); and secondly, an adult herdsman who was seen standing on a rock and having relations with a female buffalo. The Basel Mission presbytery minutes for 1903 (written by Badagas) cite similar problems with a Badaga Christian teacher: "...last year he committed sin with a Toda girl...when he was on the way to Ooty to see his wife, who had gone there for her confinement. He also confessed that he had committed the same sin with his own country mare. This was all he confessed." (Basel Mission 1905: 305.)

3.5. These however are for Badagas aberrant forms of sexual expression; most experimentation takes the form of heterosexual intercourse. Its techniques will be described later (3.16), but here we will discuss only those situations in which young Badagas learn about sexuality. For purposes of clarity we can talk about affairs with lovers of the same community, extra-community liaisons, and situations in which parents used to arrange formal training for their adolescent children.

This last custom no longer prevails. It used to occur until some 30 years ago, the initiative to train a girl being taken by her own parents or another close relative; while a boy would usually seek his indoctrination in the arms of an elder brother's wife. In a typical case a man might tell his wife that their unmarried daughter was now old enough for sexual initiation. The wife would then speak to a married daughter about the matter, and she in turn would ask her own husband to offer the necessary practical training when an opportunity arose. In any event, it was supposed to be a relative, such as sister's husband — even if only in a classificatory sense — who should initiate a young girl. If a girl did not undergo such an initiation there was another opportunity for her immediately following her wedding. In this instance the person who would deflorate the bride was not the groom, but a more experienced man who could be gentle with her for the first night or two, and would be related to her as a classificatory husband's brother. The new husband would be absent on these occasions. This custom is no longer followed.

The obverse situation would involve a youth when aged about seventeen being given sexual training by a brother's wife who might be ten years or more his senior, and in some instances used to be

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843 585 851 and his wife are supposed to be under pollution, and sit in the verandah to receive presents. The mats used by them for sleeping on are cleaned on the following morning, and they get rid of the pollution by bathing. (Thurston 1909: 108-09)

(833) It is reported that the couple sleep side by side on this night, with a stick between them to symbolize the coming child, and they are supposed to have intercourse. This however is considered a more dangerous act in the fifth than in the seventh month.

In the unfortunate event that this ceremony is not performed before labour begins, the nude woman is covered with a cloth while her husband ties the turmeric-coloured thread around her neck. (The cloth simply saves the woman from some embarrasment.) If the thread is not tied before her delivery, it signifies that the woman has no husband.

843 •757 4.5. From the seventh month onwards the foetus may get a limb tangled or be in the wrong position, and then the mother feels some lassitude and cannot work. One of the few old ladies who have the skill will then massage the woman's stomach till the foetus is back in the regular position. The massage isdone with the help of oil poured on the stomach. This oil used to come from the nuts of the castor-oil plant; but nowadays ground-nut oil is used, or else coconut oil sometimes. This massage can only be done in the seventh or ninth month, for the stomach should not be touched in the eighth month at all. Neverthless an old, highly experienced woman may do the massage in that month, but still with trepidation.

843 There is in fact a saying which translates : "In the fifth month the child will say, 'Shall I come out or shall I stay inside?' " Another states: "In the eighth month he will make a place for himself," it being implied that the foetus will be aborted then if it is not comfortable. The foetus can possibly get out of position when the woman walks or gets into bed. Hence another Badaga saying: "During pregnancy be careful about the legs; during the milk-giving time [i.e. until the child is weaned] be careful about the mouth." "Legs" refer to the woman's movements. She must be careful about the "mouth," i.e. her diet, because that food will be transmitted to the baby through her breast milk.

The woman may do whatever she wants, and is given whatever she asks for, in the ninth month. She is usually at her father's

clarified butter and sweet flag. All but the last two are grown in the plains and bought in the bazaar. Sweet flag is a Nilgiri plant the rhizome of which is dried. These items have to be mixed in particular proportions. The dried ginger is a rhizome one cm. thick; a piece one cm. long is used; also the same amount of sweet flag rhizome; four small pepper seeds; one teaspoonful of the small cumin seeds; three or four cloves; 1/2 cube of sugar; 1/2 teaspoonful of coffee powder; and two teaspoonfuls of clarified butter. Except for the butter, coffee, sugar, and cumin, these items are crushed on an open mortar with a metate-like stone roller. This object, about 20 cms. across, is called *maddare* or *matkallu*, and is used exclusively by Badaga therapists for grinding up medicines. An empty pot is put on the fire, and the cumin seeds roasted in it; when ready, they make a crackling sound. Then about two tumblers of water and the crude sugar are added, and after them the other ground items. As soon as the water boils the coffee powder is added; and when the liquid has half evaporated, it is filtered carefully through a piece of clean white cloth into a tumbler containing the clarified butter. When it has cooled a little this mixture is given to the woman to drink. After that her pains stop if the delivery is not really imminent; or else she has a quick delivery.

4.8. For a week or so before the expected birth the neighbours and other women of the girl's lineage keep an eye on her. When one of them has to go off to the fields to work she first calls to enquire about the health of the expectant woman. As soon as labour starts her parents send messages to all of the neighbouring houses, and also to her husband's house. The latter is supposed to pay the messengers who bring the news to him.

There is generally more than one midwife in each village. There are usually also some girls studying midwifery, so that as the years pass the younger women can take over from the old midwives. No male is allowed to be present at a Badaga birth. Any woman can be there, and generally women who know how to deliver a baby are asked to come, as are the girls who are learning midwifery. There is no rule that small girls should be excluded but they usually are because they may become afraid. For that same reason pregnant women are generally not allowed there. Women who are breast-feeding babies are also strongly advised not to come, since the strong smell may have a bad effect on both mother and child. Despite such warnings some brave nursing mothers may still come,

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half, and on each cut surface someone puts fresh cowdung, a blade of Bermuda grass, and some clarified butter. Then an old, experienced woman takes the first half of the lime and runs itdo wn the right side of the baby, not quite touching the body. As she does this she says: "This child belongs to both the father and the mother;" but she does not name the parents. This assertion of joint parentage is the whole point of the ritual. Then the half lime is sucked by the mother, touched to her child's mouth, and thrown away. In the same manner the other half of the lime is then run down the left side of the baby, the same pronouncement made, and the mother sucks the lime, touches it to the baby's mouth, and throws it away too. The lime is perhaps intended to ward off evil spirits. If at an unexpected birth no lime is available, the ritual is either done using the leaf of a lime tree, or failing that it is done with the cowdung, grass and clarified butter alone. After this the baby is fed, first from the right breast, then from the left.

Bezoar is a "heat-giving" substance from the stomach of a cow, supposedly the one which leads the herd. A small quantity of it—about as much as a coriander seed—is covered with mother's milk and given to a male infant just after he has drunk milk for the first time. Should there be none available then, the bezoar can also be fed to him on the third, fifth or seventh day of life, and that day must be a Friday, Tuesday, or Sunday. It is believed that this substance will make the boy active, strong, and very brave; it is therefore not given to girls, lest they grow up to disobey their husbands. The biggest bezoar stones are perhaps 2 cm. in diameter. They are found in the stomachs of nearly all cows, especially those which are very healthy or those which are barren. Interestingly, all vegetarian Badagas give this substance to their infants, even though they know it comes from a dead animal, Like all children's medicines, it is now obtainable in the town bazaars, though formerly it was supplied by the Kota tribe; it even comes in "tablet form."

If the woman is actually ill before the delivery, and in half of the other childbirth cases as a precaution, she is given a medicine before drinking the coffee offered her after the birth. An oil called *be:venne*, which comes from the seed of the nim tree, is boiled with some garlic in it, allowed to cool for a while, and then the mother drinks a little and the remainder is rubbed over her head, neck and body. The oil is very "heat-giving." A piece of garlic is tied with

844 A piece of garlic is tied with
•757 cloth to each of her big toes, to prevent her from catching cold. (If
(751) she gets a heavy cold, the illness is called *janni*, and the temperature of the body is below normal. Then a liquid medicine can be administered). Some five to ten minutes after the oil is given, the
(846) mother is offered coffee with palm jaggery. This is given to all women after delivery.

844 4.12. The afterbirth comes a half-hour or so after the delivery, either before or after the mother has taken a bath. If it is slow in coming she will have the bath without waiting for it; although in earlier days it was customary to wait for t. Nowadays government midwives, if called in, pull the afterbirth *ex utero* if it does not immediately follow the delivery; and some others do this too.

844 Badaga women seldom go to hospital or even call a doctor
758 during child-birth. If they do so one can be sure that things
743 are very serious and often complicated. One day a Badaga woman was carried to the hospital . . . It was a case of retained placenta of three weeks duration, as the relatives told us. The woman was semi-conscious and pale with the loss of blood . . . (Ketti Medical Mission 1953:4).

(657) With the increase in government programs for training midwives, such tragedies are becoming very rare. Some Badagas apparently knew of a medicine which they also provided Todas with to release a delayed placenta (Rivers 1906: 323).

844 Next, the floor where the child was born is washed with a cow-
788 dung solution. A handful of hay is lit with a brand from the fire and circled around several times over the damp spot. The burnt hay is then thrown away and the firebrand hit on the floor at that
(751) point. The same place is then scratched with an adze, for it is said that if this is not done the child will get itches on the skin. (No spells are spoken; and it is not important to get the cowdung dried by the fire.)

844 The afterbirth is then carried by a woman to somewhere, generally within the hamlet boundary, where it can be buried. This can be anywhere distant from the settlement. Men may come to help
(783) dig the hole, but will not touch the polluting afterbirth. It is bundled up in the dirty cloths or sacks, all of which are buried with it. A big stone and thorn bushes are put on top of the burial place, simply to make sure that no jackals or dogs eat it, for Badagas do

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853 the woman is startled, or if she comes into contact with a "bad wind" as we discuss below (5.4). When a nursing mother comes (262) from a family known for its low milk yield she is given buttermilk, made from boiled cow's milk, and with it a rich diet of clarified butter and food made from little millet. She does no hard work and enjoys complete rest. (Nothing is rubbed onto the breast.)

5.3. If a nursing mother is eating irregularly, or having sweet things, or too much food, such behaviour can affect the nature of 853 her milk. To counteract its poorer quality a certain medicine can 298 be given to the child, but only between its fifth and twelfth months (generally just in the fifth and sixth). It is made from two plants, ●757 *homogu* and false privet, used in the proportion 2:1 and baked with clarified butter. The material is then ground on a special stone and mixed at the same time with some of the mother's milk. A pinch of salt is usually added. Finally half as much butter as the volume of this mixture is added to it, and the resultant medicine is divided into three parts, each rolled into a ball 2 cms. in diameter. The baby swallows one of these balls on the morning, a second in the evening, and the third the next morning.

853 If a nursing mother eats too many sweet things, she may trans- 262 mit worms to her baby through the breast-milk. In fact, small 164 children are much more liable to worms than their mothers. A woman thus may not have worms while her nursing infant does; and if she eats too many sweets in the eighth or ninth month of pregnancy, worms may appear in her child during the first three months of life.

853 5.4. A nursing mother is regularly afraid that if she goes near a 783 corpse or smells another birth, or if she smells anyone other than 784 her own husband in the early morning who has not yet bathed since coitus the night before, the breasts may cease to give milk. Some are even afraid that a sudden noise will have this effect, and others are afraid of hearing talk of any terrifying subject. This phenomenon of a "bad wind" associated with the polluting aspect of coitus, birth and death works in devious ways. When a newly delivered mother is in the room before another woman's delivery occurs she can stay there and the smell at the time of birth will not affect her; yet if she enters a room where a birth has just occurred the bad odour there can affect the flow of her milk. 853 If an adult dies in her presence her milk is not threatened by a 761

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853 751 783 A woman affected by a "bad wind" of any kind can counteract it by going out beyond the territorial boundaries of her village and then returning, on the way finding the two plants *moḷḷe muttu giḍu* and cardamom. She should rub them together in her palms, adding a little water and rabbit dung. Then if she swallows this preventive mixture before nursing the child it will not be affected by the "bad wind."

853 757 755 5.5. There are two medicines that can be administered to a mother if her milk stops flowing because of some frightening experience. The first one applies if her baby is less than four or five months old. The therapist sitting with the mother has a whole lime in one hand and with it some sacred ash (*vibuṭi*) or occasionally wood ash. She moves the lime around clockwise (from her viewpoint) in front of the mother, while saying: "If there is any bad air, or if she has had a fright, may the milk now flow!" The sacred ash is then smeared on the mother's brow and she eats a little of it too. Next the lime is cut in half, and the mother drinks its juice. This procedure is followed every morning for three days. If the baby is older than four months another medicine is given instead. Half a glass of the juice of the cockspur flower is drunk by the mother before each morning meal, for three or five consecutive days.

862 5.6. Before weaning the child is already being fed by hand by some relative and this continues until at about four or five years he feeds himself from a separate plate or leaf. From the start of the third month of life, and certainly before the start of the fifth month, the baby is given solid food. In earlier times more than today this was a good quality of little millet; now good rice is more usual. It is mixed with water or cow's milk—but not buffalo's—and boiled in a small pot (*kuḍikke*) used only for this purpose. A pinch of salt is added and perhaps some butter or clarified butter. The baby is given this once daily during the first month of eating, and thereafter twice daily.

539 862 One proverb exhorts people to be generous in feeding enough to the children: "Neither should the rice become half, nor the sister's children become weak." Or sarcastically, "See that person dance with half-empty stomach!" (Metz 1864: 97). Another refers however to the greediness of some children: "If you give a child, which has scarcely spoiled flour to eat, a cake, it will ask sugar to put upon it" (Metz 1864: 96).

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improve the hair, two other procedures can be followed. Either the hair is washed, using the bark of *toreko:ḷu* for soap; or else some tiny buds of common bracken are ground up till they form an oily paste. This is used as a shampoo for some days when washing the baby's head.

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A disease that occurs among youngsters causes patchy baldness, as clumps of hair fall out. It is said that "insects" are eating at it and so they must be killed. A biece of hard, hairy bezoar stone, called "hair-diamond," is bought in a bazaar. It is dipped in milk and then rubbed onto the bald patch repeatedly until it bleeds. Then "the insects inside die," I was told.

ORTHODONTICS 856

5.27. "It is bad if a tooth sticks out; it is bad if a river passes beyond the river bank." Thus if a child's tooth is not growing in the right direction an older woman of the household soon tries to bend it into position. She works at this every morning after the child wakes up, and before he eats, for one or two weeks. There are two procedures: either the child sits by the fire and the tooth is held in a cloth that has been heated over the fire; or else the cloth is dipped in very cold water before use. *Ma:dua*, a mouth disease common among children, is described later (6.39).

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TONSILITIS (*tonde kaṭalu*) 752 826

5.28. In earlier days some therapists grew the nails of the left thumb and index finger for use in tonsilectomy. Tonsils were taken out after they ached or swelled so much that the child could not eat. Someone pressed the back of the tongue down with a cooking skillet, so that the child could not close his mouth, while others held his head and arms to keep him still. The therapist put her thumb and index finger down the throat and pinched the tonsils off with her long sharpened nails. (They could be thrown away anywhere.) A pancake made of fresh finger millet was then prepared and kept aside until it was cool and dry. Then it was cut into small pieces and these were

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dried further. Finally the patient swallowed the pieces without chewing them first, so that their sharp edges would cut off any parts of the tonsil that remained. The pieces were swallowed before each of the next two meals following the operation. After this the patient just took the ordinary meals, but was advised to wash his mouth out with salty water for one or two days.

757 (825) **COUGH** (*kemmalu*)

5.29. The blood of a hare (*Lepus nigricollis*) used to be given as a throat medicine to children suffering from a cough (Thurston 1912: 85). Today the stem of a peacock feather is used instead to cure a cough or cold in young children. It is rubbed on a stone to produce a minute amount of powder, which is then mixed with powdered rhizome of the sweet flag and a little honey, and swallowed by the child. For babies, however, nothing but a half teaspoonful of honey is given, and for children between one and four years this is increased to a full teaspoonful. Only the honey from sealed cells of honeycomb is used as a cough medicine, although Badagas do use the honey from unsealed cells as a foodstuff.

755 **SINGULTUS** (*selamudalu*)

5.30. Someone should blow in an infant's ear to cure its hiccups. If this is not successful, then one blows on the top of its head.

757 825 **PERTUSSIS** (*kokkare*)

5.31. The flesh of the Nilgiri langur (*Presbytis johnii*) used to be sold in local bazaars as a cure for whooping-cough (Thurston 1906: 271); I have heard that it is still available, although illegally so since the animal became a protected species.

856 755 732 (826) (854) **RICKETS** (*sotte*)

5.32. If a baby is born with its limbs bent nothing can be done about it, although massage will be attempted in infancy, as we mentioned above (5.10). If it is thought there is no strength in the waist "because of the nerves in the hip," a treatment can be tried. Instead of bathing the baby in regular hot water, some water in which rice or preferably little millet, has been cleaned is kept, and each evening for a week or two this is heated for the daily

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bath. When near body temperature the water is splashed onto the hips and waist by hand, and this area becomes stronger. The baby is not immersed in the water.

5.33. If the legs are weak they will bend when the child begins to walk, and so they must first be strengthened. To do this a long leaf of aloe is needed: all the spikes are cut off it, then it is heated over the fire and twisted tightly to squeeze out the juice. *Hulla majjige* (the name of several species of sorrel) is also ground up and its juice collected. Some salt and a small amount of wood ash from the hearth are mixed in with these juices, and the resultant liquid boiled until all that remains is a glassful of very thick paste. This is smeared all over the baby's legs up to the waist. It is left on, and more of the same concoction is added every morning and evening for the next three days, without any of it being cleaned away. On the third or fourth day the dry paste is cleaned off, and the baby rests for two or three days. Then the whole process is repeated. Four of five such series of treatments are given over a month, and afterwards the child should be able to walk alright. If it still cannot walk properly, however, this means that the bone has been bent since birth and no remedy is possible.

CONSTIPATION (*se:dalu*) 757

5.34. When a small child is constipated someone takes the rib of a tobacco leaf, rolls it between her hands a bit to remove any sharpnesses, and dips it in castor oil (or formerly gingelly oil). Several people hold the child still while the woman gently pushes the rib into the rectum, after which the child eases himself.

ENURESIS (*maggilucce*) 757 755

5.35. Some young children pass small amounts of urine every few minutes and wet the bed at night. If it is a mere infant three fingers wetted with castor or gingelly oil are put in its mouth to suck. A somewhat older child is given a half teaspoonful of the oil to drink.

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164 WORMS

5.36. If a child has no appetite, and is troubled by nausea and watery feces then he is suffering from worms. These are the same kind of worms that are considered to aid in the digestive process (I0.I3). The illness is caused by eating too many sweet things. In the first phase there will be hundreds of small worms in the feces; then, if these are ignored, a few of the worms in the belly will grow big by eating up the smaller ones. Then a big worm will sometimes come out, either from the anus or from the mouth.

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The cure involves burning some rhizome of sweet flag in the flames of the hearth, but not in a pot. When the root is quite black, but not yet charcoal, it is powdered and mixed with an equal quantity of butter. Should this not be available, one can mix the root powder with clarified butter, a good vegetable oil, mother's milk, cow's milk, or else water, in this order of preference. One teaspoonful of the mixture is given to the child thrice daily, but no food except milk is given for one or two days after a worm has been found. After the medicine is administered, the worms generally come out through the anus, but sometimes through the mouth instead. If several worms are found twisted together in the feces, it means that small ones are still growing in the belly, and so the treatment has to be repeated to remove those that remain. But otherwise the treatment is not continued till the second day if the child recovers on the first.

In some instances a worm may die inside the child, in which case he will be constantly crying, and will neither eat nor drink. Some clarified butter or oil must then be forced into his mouth, and this will release the dead worm.

(164) CRETINISM (*karu hotte*)

5.37. If a child is not eating properly and has diarrhoea, a distended stomach and lean limbs, then he needs a particular medicine. Some whitish clay is heated in a fire until it is red hot and

757 then dropped into gingelly oil, which boils. The material is later taken out and is powdery. About a quarter teaspoonful of this is swallowed and the child will improve.

[164] If however the stomach is extremely swollen and the legs thin, this is because of a *ka:male*. The treatment is then to burn the child's stomach with a piece of glowing iron or charcoal (cf. 7.9). INFECTIVE HEPATITIS (*bara ka:male*)

164 Chicken-pox, a common childhood disease, is also discussed later (7.2), along with the other diseases that are believed to be inflicted by goddesses.

278 757 5.38. Rue is used as a medicine for children's fever. "Even the aroma from the leaves tied in bundles and hung inside the house is said to be effective in allaying fever" (Krishnamurthi 1953 : 144).

5.39. Fenugreek is soaked, crushed, and rolled with a little water into balls : these used to be fed to young children who were lean or suffering from "consumption." PHTHISIS (*so:gano:*)

828 755 757 5.40. When a small child falls down and is frightened, the mother immediately picks up a piece of mud from that very place and touches it to the tip of the child's tongue. This stops the child from being afraid of falling. If a child has been otherwise frightened it must immediately be covered with a blanket and given a steam bath under it, by means of water which an adult pours onto a red-hot knife blade being held under the blanket. FRIGHT (*anjike*)

756 755 828 5.41. Generally it is an old man who knows therapeutic spells, and these are only used to cure children who are feverish and frightened; their symptoms being that they are afraid of the dark, crying at night, having nightmares, or not eating properly. A suffering child is taken to the therapist very early in the morning, since the spells have to be said before the child eats. If the therapist lives a long way from the child, he will

6 SOME COMMON BADAGA MALADIES

"This cure has been known to work sometimes."

(Informant's comment)

Skin Diseases

BENIGN WART

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6.1. There are at least three kinds of wart or swelling. In Baḍaga a small one is called *ne:ga:le*; a bigger one is *ga:le*; and the most dangerous kind, a swelling in unseen areas of the body is called *bippiri* (when inside limb joints) or sometimes *kaṇḍa ma:le* (goitre, only on the neck). To discover which kind of swelling she is dealing with, the therapist first makes a trial with the medicine for a small wart. A piece of the tuber of wild yam is ground up to produce a small quantity of liquid, which is dabbed on the wart. If more of the medicine is then required the whole tuber is ground to powder, which is mixed with woman's milk or, failing that, cow's milk or even water (curds or clarified butter cannot be used for this). The mixture is applied to the swelling and dried near a fire. No cloth is tied over it. This procedure is followed through once, twice or thrice, and if the swelling is small it will be cured. Alternatively the juice of *alavan giḍu* can be touched on a wart, or

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else *kal hamiske*, a lichen, is crushed to a paste and applied to the skin.

FURUNCLE : ABSCESS *ga:le*

6.2. If however it is a larger swelling it will grow bigger and another medicine, called *pattu*, must be used. It includes two roots, evening primrose and *nelahi:ssu*. These are ground up together with a half teaspoonful of turmeric rhizome, 1/4 ounce of crude sugar, the buds of the Jamaican switch sorrel, a tablespoonful of little millet, and a pinch of salt. Water is added to this mixture to yield a paste which is applied to the swelling. A small head can then be seen on it, and the paste is not put over this point. A leaf of the cutch tree is taken, and on its upper side is put some groundnut oil (in former times, gingelly oil). This leaf is held over the fire until singed brown; and in this state it is applied to the swelling, and if possible tied in place. It has to be kept there for one day, and as the medicine is usually applied during the evening the patient has to be very careful about how he lies in bed. Pus forms in the swelling, and after a while oozes out, carrying the leaf with it. If however the swelling does not break open within a day the therapist removes the leaf to look at it. If all the sides are white and the head is red, he knows that it is "ripe"; otherwise he must repeat the preceding treatment.

When it is ripe but no pus comes out, he takes a red-hot needle and touches its point carefully on the lower side of the swelling, rather than on its head, and usually all the pus will drain out. If it does not, the swelling may become bigger. The pus continues to drain off for one or two days ; and to aid it a thread is stiffened by dipping it in turmeric paste. This is then passed through the hole that is oozing so that it will not close up. A thick coating of liquid cowdung is put all over the swelling except on the hole and the thread. As the cowdung slowly dries it causes the swelling to contract and so expels the remaining pus. For

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this purpose the fresh dung of a young cow which has never calved is preferred: Badagas can tell at a glance if it is the right kind of animal because it should digest its food well. Every four hours the therapist removes the thread, lets the pus flow, and when this stops puts the thread back in the hole. Several times a day, when the cowdung becomes too dry, a fresh coating of it is applied. The swelling should cure in two or three days by this method.

MELANOMA (*bippiri*)

6.3. If when the medicine is first applied the swelling is too big to be called a *ne:ga:le*, but it does not have a head on it, then it is a case of *bippiri*. This can in fact get started alongside a *ga : le*, if all the pus is not removed from the latter. The *bippiri* has to be treated with the bark of a tree (details unavailable).

GOITRE (*kaṇḍa ma:le*)

A goitre is punctured with red-hot needles; or else treated with thorn-apple. Other big swellings are usually cut off, especially if they fail to respond to the above-mentioned medicines. During the present century such surgery has been done with a razor, but before that a piece of broken bottle glass was used.

DEPIGMENTATION OF SKIN, OR VITILIGO (*sullu*)

6.4. Patches of white skin on the body are called *sullu*. This is a disease for which there is no medicine. It is caused by the bite of the blindworm (*Typhlops braminus*), even when the patient is unaware he has been bitten.

taddu)

6.5. Another disease which causes dry light coloured patches on the facial skin is *taddu*. Before going to sleep patients put oil on these patches. There is also another treatment: a relative takes a piece of dry cowdung, and rubs or touches it against the patches, while saying a special formula. The important thing is for the relative to be of the opposite sex to the patient, mature but unmarried, and in the relationship of a classificatory spouse—someone the patient might later want to marry (Badagas are polygynous). As this person touches

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602 755 the cowdung to the patches he says: "I am in the relation of sister's husband to you; medicine for *taddu*." In the case of a woman helper she would change the wording to: "I am related as a brother's wife to you . . ." The formula and the touching are done three times.

757 6.6. If similar patches occur elsewhere on the body they are not considered to be *taddu* and are treated differently, as itches. In the old days this cure involved grinding a leaf of chewing tobacco, mixing it with goat dung and water, and putting this onto the patchy skin where it would dry. If however the patch itself is not dry as in *taddu*, then it is given the more usual treatment for itch. [282] Two vegetables, the marrow and the red onion, will cause itching if eaten in large quantities).

164 6.7. Another skin disease is called *a : ne gajji* ("elephant sores"). These are big watery sores on parts of the body which the patient cannot see, such as the back or the cheek. To treat them 757 *ka : vi kallu*, a brown stone, is ground up and 755 mixed with water to form a paste. A sketch of an elephant is made with this on a piece of wood or nowadays slate, and the same paste is also applied to the watery sore once daily for at least three days, during which time it should not be washed off. Each time the paste is being applied the patient stares at the drawing; and he should also stare at it every ten or fifteen minutes during the entire period he is awake during the treatment. If the sore is especially big the paste will be applied morning and evening for several days. Care must be taken that no water falls on the paste. It is allowed to dry on the sore, and with the help of a fire if necessary. After three days the paste can be washed off, but if the sore is still evident another dose of the paste is applied for a few more days. During the entire period of the treatment the patient should not eat any chilies or salt.

ANGIONEUROTIC EDEMA (*a : ne gajji*)

164 6.8. Tinea affects the feet during the rainy season.

TINEA

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(*gore huṇṇu*) To cure it they are washed clean with hot water and anointed with butter, or nowadays coconut oil, before the patient goes to bed. 757

ALOPECIA (*bo:le maṇde*) 6.9. A treatment for baldness is to rub deer's blood into the scalp. [755]

DERMATITIS VENENATA (*bava:ci turi*) 6.10. When women are gathering firewood they are careful to avoid contact with a creeper called *bava:ci*, which grows in the shade of the forest. If it is broken and its juice touches the skin, itches develop all over the body. The treatment is to touch the itching parts with *go:re* (the name of many species; cf. trilingual index), a plant that grows in damp places. After about a week the itching stops. [164]

ECZEMA (*hu:huṇṇu*) 6.11. Eczema is reportedly treated by grinding up the leaves of dead-nettle and applying the mixture with lime juice to the affected areas (Krishnamurthi 1953: 145). If there is prolonged itching on one part of the body, the skin is trimmed off and then medicine for a laceration is applied.

Lacerations

LACERATIONS (*gaiya*) 6.12. Something intolerable is referred to by the proverb, "It's like filling a wound in the stomach with salt." Another proverb emphasizes the need to take great care of lacerations: "Isn't the wound like an eye?" In general one should not interfere with a wound once it has been treated. First-aid for a cut, if there is no opportunity to get the necessary plants, is to burn an old rag and put the ashes on the wound. 752 [539]

6.13. A cut is not washed before treatment, even if it is on a dirty foot. It may indeed be tied up temporarily with a dirty cloth. Medicines to put on lacerations have changed over the years. Before the British reached the District in 1819 it was customary to use pink marsh balsam or red liberty cap plants. Later, when the geranium had been introduced into the Hills, its younger leaves were used instead. These are ground with salt and two or 752 278

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of the vegetables he has frequently eaten. However Badagas are not in full agreement as to whether this works. Another treatment for the illness involves a therapist. She feels around the forehead on the side where the pain occurs until she can take hold of a "nerve" (sic!) just above the eye. This is then neatly incised with a razor. Despite the bleeding that follows, in most cases, the patient is cured. Sufferers nowadays tend to go to a hospital for treatment, however.

Until early in this century therapists cured headaches by making patients swallow a paste they made from common vetch; now they use such pills as aspirin instead.

HEADACHE (*maṇḍe:ru*)

Ears

6.27. There is no cure for deafness, and so a child deaf from birth will be treated as though dumb. People with wax in the ear may become deaf because they break the drum while trying to clean it. A proverb which relates this fact to the use of another stick as a toothbrush warns, "The teeth are spoiled by not using a stick; the ears are spoiled by using a stick." Nevertheless, the ears are sometimes cleaned out with little sticks, perhaps with a fragment of cloth wrapped around the end: *hasini* is a species often used, and nowadays metal scrapers are too.

DEAFNESS (*kiruḍu*)

6.28. Earache will pass away, but can also be cured by irrigation. To do this, someone takes a small red chili, cuts off one end and removes the seeds. Using it as a cup, a small amount of any kind of oil is poured into the chili. It is held near the hearth or a flame until it is warm. Then the patient lies on his side and one or two drops of the warm oil are poured into the ear. This usually cures the ache; but if not, and if there is wax inside, the ear must be washed out with hot water.

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Eyesight

732 BAD VISION

6.29. Badagas can test their eyesight with the help of the moon. On the night of the new moon or the one after that a man is asked if he can see a small line on the lower edge of the moon while it is low in the sky. If he cannot see this, his sight is defective. He must then take a leaf of the castor-oil plant or "some other jungle plant," and keep it on the top of his head for a month, after which he is tested again. "This cure has been known to work sometimes," I am told.

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6.30. When insects and other small objects get into the eye, somebody blows on a piece of cloth—such as the corner of a loincloth — and when it is warm he wipes the surface of the sufferer's eye with it.

732 BLINDNESS (*kurudu*)

6.31. Badagas have no cure for blindness, and if the sight is defective glasses are nowadays the only normal remedy. One can even find ready-made glasses of varying prescriptions in the bazaars. It is generally believed that if one prays to the sun at sunrise while looking into it, vision will remain good. The deaf and the blind cannot enjoy life, as one proverb maintains: "For a man without ears, what use is a musical instrument? For a man without eyes, what use is the countryside?"

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164 TRACHOMA OR CONJUNCTIVITIS (*keppu kaṇṇu*)

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6.32. If the eye turns red, it is because there is too much "heat" in the body: this can be lessened by extra sleep and a change of diet. The patient should also bathe two or three times daily, using the bark of pellitory as soap: it is "cooling" to the eye and the brain, and so brings health.

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6.33. If there is a pain behind the eye, the patient lies on his back with eyes wide open. The best cure is then to squirt five to ten shots of milk directly from a buffalo's teat into his eye: failing buffalo's milk, cow's milk can be administered in the same way. (Only very gentle cattle can be trusted not to step on the patient.) A simpler but less effective treatment is for a woman to squirt five to ten shots

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of breast milk into the eye. The pain will disappear if this treatment is carried out three times, in the morning, the evening, and the next morning.

CORNEAL SCAR OR VITAMIN A DEFICIENCY (*beḷḷa kaṇṇu*) 752 [278]

6.34. A white mark may appear on the conjunctiva if a wound caused by a stick or grit is neglected for a day or more. The therapist grinds one or two seeds of coriander into a fine powder. This is put into the corner of a fine, clean, cotton cloth and the pinched-up corner dipped into woman's milk or failing that cow's milk. The patient lies flat on his back with his eyes open. After the milk has soaked into the powder for one minute one drop is squeezed from the cloth onto the white spot. If the wound is small this will be quite enough to cure it; but if necessary, treatment can be given two or three times. No more then three drops should be needed even for a large wound: one should be applied in the morning, another in the evening, and the third the next morning. As the drop is placed on the eye a helper holds the eyelids open. If not administered properly the coriander may cause the eye to sting. After receiving a drop the patient must lie still for two or three minutes with the eye closed. He must not rub it even though tears will exude.

6.35. Another treatment for a white spot on the conjunctiva involves a bud of the hill gooseberry. The therapist holds it in her clenched fist and blows through it into the patient's *ear*.

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6.36. In a more advanced case of whiteness on the conjunctiva, there is another treatment that involves a certain bud. This one is about 3 mm in diameter, and must be collected when it is very small, along with a few leaves, from a fairly dry area: if it is gathered in a swampy place it will have no curative effect. The identity of the species is a professional secret that a therapist will not disclose till on her deathbed. Were she to tell anyone, her treatment of this advanced form of white spot would never work again. (I was only able to determine that the plant looks something like oats.) The therapist keeps the

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bud and leaves in her mouth for a minute of two, and while keeping them there blows through her clenched fist into the patient's ear (as in 6.35), on the same side of the head as the afflicted eye; but she does not blow on the eye itself. This is done three times, and after each blow the therapist asks, "Is it gone?" In serious cases the white mark does not clear up in one day: then this treatment is given for three consecutive days, early in the morning before the patient takes any food or drink.

164 [753] [776] ACUTE CONJUNCTIVITIS (*kaṇṇu noi*)

6.37 Yet another eye disease is called "eye goddess," and since it is considered the work of a goddess Badagas behave as they do when the smallpox goddess comes. Unlike the above-mentioned eye diseases, this one is contagious. The eyes become red, they weep, ache, and swell up. When the patient awakens he cannot open his eyes because a white pus sticks the lids together. If he tears them open the eyes will itch and be more troublesome still. Many people, I am told, have blinded themselves by attempting to open the lids.

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The eyes should be washed very gently in the morning with the soft leaf of velvety patchouli or related species (*koḍaṅgu*) and some cold water: this will open them. A medicine is administered on three different days, chosen from the following: the third, fifth, seventh, ninth or eleventh days from the start of the illness. The therapist puts into some fresh water a number of white dead-nettle flowers, as many in fact as the number of days since the illness began. He then splashes the water and flowers with his fingers onto the brow of the patient; splashing it as many times as the number of dayss ince the illness began. Following the third occasion on which he does this, he must add leaves of the nim tree to the remaining water. This water must be at body-temperature, and is used to wash the patient's entire body. Should the water be too hot the therapist must simply wait till it has cooled enough, and may not add cold water to it. After this bath the patient does

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not dry himself, but instead sits covered with a cotton cloth under which some incense is burnt to create a thick smoke. After this a cure can be expected. During the entire course of the illness the patient must eat only the "cooling" foods such as milk and fruits, and must abstain from things like chili. Also he should use no woollen material for clothing or bedding.

Mouth, Nose and Throat

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6.38. Teeth are not filed in any way nor are cavities filled. If a tooth is loose, it is pulled out with the fingers, or else an attempt is made to cure it by rubbing it with ginger. There is a proverb which warns, "The son who is spurning his father is no good; the tooth that is protruding from the lips is no good." As we have seen (5.27), a woman will try to bend a child's misshapen tooth into position with a cloth.

PYORRHOEA (*ma:dua*) 164
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6.39. The major mouth disease is quickly detected because a very strong odour is noticeable even from some feet away. Although mainly a children's disease, it can affect adults. Badagas believe that "germs" eat the teeth: the disease can rot them, and a sufferer cannot put anything in his mouth because it is so painful. The mouth therefore has to be made insensitive so that he can eat. A local anaesthetic is therefore made from galls found on oak, obtained from a tree in the plains: they are over 2 cms in diameter and are ground up with woman's milk or cow's milk to form a paste, which is then rubbed all over the mouth cavity.

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The medicine for *ma:dua* is made from two fruits that can now be bought in shops. One is the unripe *aṇila kae* and the other nutmeg; they are ground together in equal amounts and mixed with woman's milk or cow's milk or else water. This solution is taken early in the morning, before breakfast, and again before the evening meal. If

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the disease is quite advanced a third dose is taken before the midday meal. After swallowing the medicine the patient must rest for at least a half hour before eating.

There is a treatment to prevent *ma:dua*, in the form of ginger rhizome. It must be rubbed on the teeth for up to an hour whenever the patient has time. If he does not take care of the mouth in this way, the disease can eat into the lip to cause hare-lip. It must be treated in the early stages because if left for even a week it can become very dangerous. Should it spread from the mouth to the stomach it can kill a child; as there is no effective medicine for *ma:dua* once it has reached the stomach.

The disease also spreads very quickly from the mouth to the nose, and can eat the nose away. Although recognized to be the same disease it is then called *pi:nasi*, and is treated with an extra medicine. This is put in the nostrils and onto the exterior by a specialist who may treat the patient for several weeks. I was unable to learn about its composition.

6.40. While *ma:dua* is not very contagious, there is another disease called *be:koko* which is highly contagious, and is passed to others on the eating and drinking vessels. It develops in the opposite way from *ma:dua*, starting in the stomach and spreading to the mouth. It is characterized by itching in the mouth, and is not very dangerous. Since the illness is caused by excessive "heat" in the body, everything possible is done to cool the body. Thus the patient has to be washed with *toreko:lu* bark to cool his head; he eats "cooling" foods; and swallows the *aṇila kae* and nutmeg powdered in milk.

TONSILITIS (*tonde kaṭalu*)

6.41. To cure swollen tonsils, a medicine made of leaves of thorn-apple is administered. In extreme cases the therapist removes the tonsils with two sharpened finger-nails of the left hand (cf. 5.28).

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Limbs

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6.42. If a "nerve" in the arm or leg gets "knotted," and cannot be straightened out by massage, then a therapist powders some salt in a mortar and applies it to the affected area. The "knot" then disappears without further treatment.

SPRAIN (*sikkalu*)

6.43. When a wrist or ankle is sprained, but not too badly, any kind of oil is rubbed into it; formerly butter or clarified butter was used. If this does not prove effective, then some Jamaican switch sorrel buds are immersed in boiling water for a minute or two (Krishnamurthi 1953: 145). The buds are then removed, placed on the sprain, and bandaged tightly in position. Theban dage is removed after 24 hours, but the buds have stuck to the skin and have to be washed off gently. This process is repeated once or perhaps twice more and the sprain will be cured.

ELEPHANTIASIS (*a:ne ka:lu*) 164

6.44. Elephantiasis, a disease in which the legs become grossly swollen, is unknown in the Nilgiri Hills, and my informant Sithamma had not heard of a cure for it either.

AMPUTATION 752

Badagas never amputate a limb, nor even damaged fingers. Even if a limb is crushed under a rock the sufferer retains it. In very rare cases a person may have to walk with one or two crutches; and in the past he would have used walking-sticks instead.

ULCERATION (*gi:vu*) 164

A doctor practising scientific medicine has reported cases of gross neglect of ulcerations on the legs of Badagas. Thus, "A Hindu boy of 16...with extensive ulceration of the right leg. It was a case of shocking neglect for over six weeks; only cowdung on green leaves had been applied as a dressing. We saw maggots in the wound. . . ." (Ketti Medical Mission 1938:6; cf. 6.13). Women specially are the victims of this kind of suffering: "...Pannamal was carried to the hospital quite helpless. Three great abscesses on buttock and

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this to keep it in position for three days. After the leaves have been applied a few times, and if the fracture aches, the splints are removed and another medicament is applied daily to the fracture for eight days. This is made with eight parts of liquid buffalo dung, four parts of *hulla majjige* (three sorrel spp.), four parts of tamarind juice, two parts of ash, and one of salt. The dung used must come from an adult female buffalo which has never given birth. It is rubbed through a fine cloth along with the tamarind juice. The sorrel leaves are preferably boiled in water, or else ground up. In some seasons however this plant is not available ; in which case extra tamarind juice is used instead. The resultant liquid is filtered through the kitchen ash and then mixed with water. This is boiled and allowed to cool until, while still warm, it can be dabbed on the region of the fracture with a cloth. It is allowed to dry until the skin is covered with a paste. The entire procedure is followed through three times, in the morning, evening, and next morning, without the paste being washed off. Later however it is washed away and a fresh mixture made up for a further three applications. Similarly, for the entire series of medications, a new mixture is made after every third application, the quantity of it varying with the extent of the fracture.

6.47. The mixture just described is also useful for rheumatism, and for "twisted nerves." But for such ailments a single series of three applications will suffice. The medication can also be put on painful bruises, but in some cases a second series may be called for. A fomentation of the ground leaves of Jamaican switch sorrel is also reportedly in use for rheumatic pains (Krishnamurthi 1953: 145); and in the last century it was said that a man would lie outdoors, completely naked and covered in cowdung, to cure his rheumatism (Metz 1865: 87).

RHEUMATISM (*baibu*)

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Thorax and Abdomen

ASTHMA (*kemmalu*)

6.48. A cure for what is now called asthma is to obtain a few lumps of tiger flesh and roast them. The meat is then eaten, perhaps in milk. [757] [164]

Another cure for asthma involves swallowing a paste. This is made by powdering a seed of the sacred—and imported—mock olive and mixing it with water.

6.49. If one wears a string of these same mock olive seeds round the neck and across the chest, he will ward off a disease which attacks the heart. This procedure will at the same time allow the person to continue speaking right up to the last moment of life. [751]

TUBERCULOSIS (*so:ga ro:ga*)

6.50. If one occasionally touches the small seeds of the sacred basil, he will not be attacked by what we call tuberculosis. This is in Badagu called *so:ga ro:ga*, "making the body fall away," and is treated like a fever (cf. 6.67). It cannot however be cured, and the patient dies in five to ten years. [164]

DYSPEPSIA (*iguḍa*)

6.51. Adults with indigestion or a lack of appetite are given a medicine of a whitish clay, which is heated in a fire until red hot, and then dropped into some gingelly oil. When the clay is removed from this it is powdery, and perhaps a half teaspoonful of it is administered to the patient. [757] [164]

PYROSIS (*surusuru*)

Heartburn is generally cured by having the patient eat a half or whole block of crude sugar, or drink some milk.

6.52. To cure a pain in the side the sufferer takes a plate and puts a roughly made lamp of cowdung on it. This is filled with clarified butter and a lighted wick floats on that. The wick is covered with a drinking glass, and after a while the flame goes out and a vacuum is created. When this vacuum becomes broken and the glass can be picked up from the plate the pain should disappear. If it does not do so immediately, it will certainly go away within three days. [755]

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night, after it had been carefully tied up in a cloth so that the seeds would not fall out. Although the poppy head could be green or dried it would be more effective if green. The next day it was taken out of the cloth and ground up with some milk: this mixture was swallowed by the patient very early in the morning, before taking any other food. The therapist varied the dosage according to the patient's age, and would continue the treatment if necessary for up to three days.

6.56. An alternative treatment for constipation uses the bud of the hill gooseberry or, in seasons when it has no bud, the leaf shoots. This medicine, which is more effective than the other (6.55); is also taken for one, two or three days before the first meal. As with the poppy head, these buds are ground up with milk and eaten by the sufferer. Some other medicament is tried if the condition does not clear up in three days. Castor oil is now a common laxative: one or 1½ teaspoonfuls are swallowed, and some is also put onto the rib of a tobacco leaf, which is inserted into the rectum (cf. 5.34).

HEMORRHOIDS (*mu:la*)

6.57. Piles is likewise caused by "over-heating" of the body, and therefore the patient is to be given "cooling" foods. Vegetarians eat milk products, non-vegetarians eat certain eggs and meat that are said to be "cooling." Patients also eat *nella ki:re*, an amaranth which grows wild. This is baked with clarified butter (without being first ground up), and is eaten with each meal for about a week.

If when a person defecates a hemorrhoid protrudes, the therapist puts clarified butter on a castor-oil leaf and gently pushes the protrusion back into the rectum with it. This is repeated every time the hemorrhoid appears.

DYSENTERY (*mukkalotte*)

6.58. Another ailment of the belly is said to be "very prevalent in the Badaga villages during the hot months when there is scarcity of water"

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(Madras 1928 : 63). It affects children and weak men, when the colon "moves out of position," and is marked by vomiting or diarrhoea, or both. The curing is most often done by a woman therapist, and each has her own preference as to how best to position the patient. Thus he stands up or lies down, as the case may be, while the therapist runs both hands up and down the abdomen. She presses on it too, so as to change the position of the colon. Then for the next several days the patient must rest, take little food, and not exert himself in any way. One female therapist used to make the patient stand on his head in the small depression of the pounding-stone that is sunk in the floor, and he was held upside-down thus while she rubbed his abdomen. Two other therapists made the patient lie supine, and then slapped his stomach. Yet another was reported to have treated a man with dysentery as follows : "He was laid on his back on the floor and the woman performed a sort of stepdance on his abdomen for a quarter of an hour. Then he was turned to face downwards and the stamping process was applied to the small of his back. Apparently they believe that if by some chance the loops of the bowels have changed from their right position, this drastic method will correct them." (Ketti Medical Mission 1943 : 6)

If the condition persists after one or two weeks, patient and therapist go to a local waterfall at four or five in the morning. There the colon is manipulated into position, and then the patient lies under the waterfall for an hour or two, with cold water falling onto his stomach. Even if he becomes unconscious he is kept in that position. Should he live in an area with no waterfall nearby, the same effect is obtained by having him lie on the ground while numerous pots of water are poured on him from a height. For six months after the treatment the patient does no strenuous work ; but if he is fully cured afterwards he can do any-

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thing. The leathery skins of mangosteen fruit are also reported to cure dysentery when soaked in hot water which is drunk by the patient (Krishnamurthi 1953 : 145).

[164] WORMS

6.59. In adults the same symptoms may indicate difficulties with worms or with a displaced colon. In order to distinguish between the two problems, a therapist rubs some oil onto the belly, and as he does so there is a sound of liquid moving inside. If that noise continues after the rubbing, it means that worms are growing inside the belly. A treatment for a displaced colon is to tie a very cold, wet cloth on the belly in the morning. If the diarrhoea problem subsides for some time, this means it is not worms that are responsible.

Adults also suffer from worms because of eating too much sweet food. The same medicine is made for them as for children (5.36), but they are given two or three teaspoonfuls of it every morning and evening, not thrice daily, until they recover.

[164] ULCER (*hotte huṇṇu*)

6.60. It is said that ulcers can be cured by swallowing the ground leaves of the dead nettle mixed with lime juice (Krishnamurthi 1953 : 145).

Genitals

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6.61. Neither the Badagas nor any of the neighbouring tribes practise circumcision or clitoridectomy. Some men have recently had vasectomies at the Government Hospital, in connection with the family planning programme.

164 VENEREAL DISEASE

Other South Indians sometimes claim there are eighteen different kinds of genital disease, but the Badagas know of only two kinds: *su:le*, which originates in women, and *belle*, which originates in men. Women cannot be troubled by *su:le*, but men suffer when they catch it from women; similarly, men are not afflicted by *belle*, but women can catch it from men. I was told that a century ago nearly all of the Badaga, Toda, Kota, Kurumba

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842 be that way for every thousand women who are. It is not assumed that a women is barren if her first marriage produces no children, however: the couple should divorce and both remarry, in order to have children with other spouses. By this procedure it will be seen whether a person is really infertile. Badagas believe infertility is caused by a (754) curse, or by sin done in one's previous life, or by (783) the sins of one's ancestors. In some villages a childless man would allow his brother to have (837) coitus with his wife in an attempt to gain off- (835) spring.

842 I was unable to identify any definite medicine for infertility. A barren girl was inspected nude by 759 a therapist and told that "she was intended to be a male and would never have childern." (Sometimes the therapist could tell from a girl's face if she were incurable, and told her so.) Nonetheless the female therapist later on (around 1930) made 842 a positive suggestion for curing the barren girl: 759 she should get hold of a small boy just after he 755 had defecated, and while his penis was in a some- 839 what erect state; she should then gently suck on his organ. This was probably a reflection of the (827) idea offered somewhere in the Puranas that the semen of small boys is in vaporous form; later it becomes liquid; and in old age it has become solid. It is highly doubtful, however, whether any Badagas believe a woman can be inseminated through the mouth.

842 This particular therapist did have a medicine for infertility, but apparently died with her secret •759 long before I worked in her villages. She did know of a plant that cured the affliction, and once mentioned to a daughter-in-law that the cure was very difficult and that she had very high standards for its proper performance. In administering the medicine she also told women they should love their husbands to the utmost, for they were usually barren simply because their minds were not

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fully with the partner. Some non-vegetarians do make a medicine for infertility from the eye of the crow-pheasant (*Centropus sinensis parroti*).

6.63. Badagas rarely offer *pu:ja* at a local temple nowadays in order to obtain children, but in the last century they often did so. Worship of the phallic *linga* symbol associated with Siva was considered very efficacious, particularly in those rare cases where it happened to be a prehistoric axe-head that had "miraculously appeared" in a field during ploughing. The Badaga ancestress deity Hette was also commonly resorted to for the same reason (Jagor 1876 : 199-200). Today it is usual for a couple with no children to make a pilgrimage to some important temple in the South Indian plains, where they make oaths to various gods, promising them goats, coconuts or idol ornaments once they have satisfied the supplicants' need for a child. It is no light matter for a man in an undivided joint family to take such an oath, because of the rules that it entails: in order to fulfil his promise after the birth of a child, the man must consult his family as to when that can be done. The problem is that (*a*) these oaths are normally fulfilled after a birth, but only on a festival day if they were taken in a *Badaga* temple: (*b*) they must not be fulfilled while *any* woman in the joint family is pregnant ; and yet (*c*) they must be fulfiled within twelve years of the requested birth. If this last rule is disregarded the offended god may visit another misfortune on the family; and so, even in a nuclear family, a man will try to discharge his obligation to the deity well before the twelve years following the birth, just in case his wife should happen to be pregnant again during the festivals of that final year. A further rule (*d*) is that if a man has promised the hair of his child to a deity, and if he waits for several years to make good his promise, then he must at the same time

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sad and discouraged, return home in the full conviction that the expenses they have been put to and the pains they have taken have been of no avail. (Dubois 1906 : 594-95)

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More recently it has also been reported that sterile women attended the popular festival of the goddess Ma:riamma at Ka:ramaḍai, near the eastern foot of the Nilgiris in Coimbatore District, to have intercourse with religious mendicants there in the hope of getting children. Such unpleasant procedures, resorted to by Badaga, Tamilian and Kanarese pilgrims alike, have long since ceased to occur, but childless couples still make vows at the Ka:ramaḍai festival "Miles" : (1933 267).

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6.65. A liquid medicine (details unrecorded) otherwise given to newly delivered mothers (cf. 4.11) is administered to a person who cannot urinate. This condition and the associated swollen bladder, caused by excess of "heat" in the body, are relieved by the medicine.

URETHRITIS (*sege*)

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Fevers

FEVER (*jara*)

6.66. The Badagas like the English have a saying, "If you are suffering from a cold, take extra food; if suffering from a fever, take little food." There are different kinds of fever, and they can affect people of all ages, but one medicine can be taken for all kinds. The shoots and smaller leaves of the velvety patchouli and related species (*koḍaṅgu*) are ground up and the juice from them mixed with some salt. This is swallowed, and is said to be more effective than quinine. In the early nineteeth century opium was used as a prophylactic against fever (Price 1908: 224).

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6.67. The Kurumbas knew of a now-forgotten twig or root which, when smelled fresh, dispelled fever. The present medicine of the Badagas makes use instead of the nest of the red-headed fantail warbler

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Cisticola exilis erythrocephala), which incorporates parts of that same plant. Therapists who collect the nests only take disused ones, which they find in jungle bushes. For the medicine one large nest is pounded up and burnt in the pounding-hole (cf. 6.58). The patient sits next to this hole, his body covered with a blanket, and inhales the fumes from the burning nest. The treatment is followed for three consecutive mornings, before the patient goes to bathe or do anything else. It is only used for a slight fever which has lasted for some days or weeks.

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6.68. The treatment for a fever caused by fright involves a sweat bath. A steel knife is made red hot, put on a plate, the patient's head held over it, and then both plate and patient are covered with a blanket. Once this is done cold water is poured over the knife, and the patient remains bathing in the steam under the blanket for five minutes. After this he drinks the water from the plate (together with any dirt in it, for it has come directly from the stream).

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SINUS INFECTION (*negadi*)

RHEUMATISM (*baibu*)

PNEUMONIA

TYPHOID (*na:du noi*)

6.69. When a person is tired much of the time, feels thirsty, has heartburn and reddish eyes, these are signs that the body is "overheated." Conversely if the nose and throat seem blocked, the head feels dizzy and the patient lacks energy, then there is "cold" in the body. Rheumatism can be caused by an excess of either heat or cold in the body. If caused by heat it is easily cured by "cooling" the body ; but if by cold it may be difficult to get the body "heated" sufficiently. A bad case of pneumonia is called by the general term *na:du no:* ("country disease"), while a mild case is *gu:de no:*; but either way it is caused by "cold," is a contagious disease transmitted by the breath, and is treated as an ordinary fever. Typhoid is treated as a more severe fever.

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The treatment for fever is partly an appropriate adjustment of the patient's diet, and partly an oint-

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ment to be applied externally. The latter is made from the leaf of the aloe: a large one is heated over a fire and then twisted, and a tumbler of the juice it yields is collected. This is mixed with half a tumbler of finger millet flour, a quarter tumbler of ash, and an eighth of a tumbler of salt. A bigger quantity is mixed up in these proportions if the afflicted area is unusually large. The mixture is boiled till it becomes a paste and is dabbed over the affected part of the body. This procedure is followed once daily for three consecutive days, and only on the fourth day does the patient wash the paste off. If he is still not cured the treatment may be continued for another day or two; (but see below, 7.2).

General Illnesses of the Entire Body

6.70. General weakness is seen as normal in an old person, and there is no remedy for it. On the other hand, if an old person becomes ill he is treated with the appropriate medicine.

If health (*pittam*) increases its influence over the body out of proportion to the influence held by the other two aspects of man—behaviour and mind—then the body feels faint and vomiting occurs. The treatment for this imbalance is to cut a sweet lime in half, remove its seeds, and grind them together with cumin. This powder is mixed with the lime juice and swallowed by the patient early in the morning, before any other food or drink. This treatment may last from one to five days.

TRACHOMA OR CONJUNCTIVITIS (*kunna gaiy*)

6.71. If an otherwise healthy man has a sudden headache and a nauseous sensation, then Badagas say a "wind" has struck him. This is the disease known as "Small Wind." Every adult can recognize its symptoms, for it is a common illness in the Nilgiris. The eyes turn red but not watery, and in a serious case vision is impaired. When a man is away from home and realizes he has been struck

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by Small Wind, he should find some *hulla majjige* and eat it immediately (Krishnamurthi 1953 : 145).

The proper medication for Small Wind is made from the following ingredients: two or three blades of Bermuda grass; a 2 cms ball of fresh, soft cowdung; a red onion 2 cms in size ; and a handful of very small *doḍḍa hulla majjige* leaves. These are all ground together on a stone. Curds or failing that water are mixed with the resultant paste to make a liquid which the patient drinks. He then rests for the next ten to sixty minutes, during which time he should be cured. If not, then he has a disease other than Small Wind.

If instead of drinking the above medicine a man with the symptoms of Small Wind eats some food with chilies, or if he takes a bath, then the condition becomes more serious. It becomes very serious if he has sexual relations. Indeed, should he do all three of these things then the medicine for Small Wind cannot help him.

For such a serious case a different medicine, called *je:te maddu*, is prepared. One day's supply of it contains the following ingredients: one or two onions, no more than 2 cms in size; the hard dried fruit from the Indian quince tree, which is rubbed on a stone until less than a teaspoonful has been ground for use; two or three blades of Bermuda grass; some fresh cowdung; a handful of small *hulla majjige* leaves, with the flowers if possible; a dessertspoonful of cumin; less than a teaspoonful of kaolin, rubbed on a stone until powdered. There are two green plants which can be added but are not essential: a dessertspoonful of the leaves of rue and the same amount of cockspur flower leaves. These ingredients are all ground together and made into a liquid by the addition of curds. A large quantity has to be made, enough to cover the entire body. Although it is best to prepare a fresh supply each night, one supply can last for two days. The liquid is rubbed

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all over the patient by a therapist of the same sex, and this is only done at night-time. In addition the patient must swallow at least three mouthfuls of the medicine. A bed is prepared in a hot part of the house, and the patient lies on it and is entirely covered with as many rugs and blankets as possible. After 20 to 90 minutes of this the patient, who is not even allowed to bare his head, breaks into a sweat. If the patient is not cured on the first night of this treatment (generally because he has just had sexual relations), it is continued for the next two nights or even for five consecutive nights. If he is still not cured by then the therapist knows that the illness is something other than Small Wind.

Should the patient want to go out in the morning after receiving this treatment, his face and feet are washed and water sprinkled over his body first. During the days he is being treated his diet is generally rice with onions, green leaves (*soppu*, "greens"), buttermilk, curd and some salt. Until completely cured he should have no chili.

6.72. Leprosy is called *doḍḍa no:* ("big disease") as a euphemism for its real name, *kusta ro:ga*, which Badagas would not generally utter. It is thought of as the worst punishment that can come through illness for the heavy sins of one's ancestors. Neither the Badagas nor the Kurumba specialists have a cure for leprosy, although those patients who can afford it take opium continuously to ease the pain. People avoid taking girls in marriage from a leprous family, although leprous men are allowed to mix in public because the disease is not thought to be contagious. Dead lepers are always buried in large quantities of salt, and not cremated.

Other general illnesses are dealt with elsewhere in this volume, in Chapters 5, 7 and 8.

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will neither eat nor sleep as usual. Throughout it he should always be covered with cloths, and these can only be of cotton, never wool. The covering is necessary to prevent wind from blowing on the itches. The pus in the spots would exude, but were it to be blown by wind it would go inside the body instead, causing the patient to feel very sick or even to die. The house must always remain ritually pure while someone has chicken-pox; thus men may not smoke in it, the parents must not have sexual relations, and if the patient is still an unweaned baby its mother must not lie on a bed or on matting, but must sleep on some sacks laid on the floor. During this period nobody throughout the entire hamlet may prepare any foods in oil, and oil may only be used for lamps. When women are cooking in the patient's house, he is taken to another house or at least to the outer room, since the smoke from cooking can make his infection worse. Bands of Kota and Kurumba musicians, both lower status and impure local tribes, are on no account allowed into the hamlet while chicken-pox prevails there, even though they would normally attend at Badaga weddings, funerals and certain festivals. Therefore if a person happens to die while there is chicken-pox in the hamlet the corpse will quickly be buried or cremated; but then later, when there is no longer any chicken-pox, a band of Kota musicians will come and the traditional funeral ceremonies will be observed, using a stick in place of the corpse. Of all the various taboos that come into play during chicken-pox, that against sexual relations is the most crucial, that against cooking with oil the second, and that against Kota or Kurumba music the third most important.

People suffering from this disease are given "cooling" foods to eat, and preferably no "heating" foods at all. If the patient is an unweaned infant his mother has to adopt this food restriction too. Beyond this, there is also a technique for treating chicken-pox. On the third day after some spots

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have been found a therapist takes cold water fresh from the spring, and adds to it three pieces of Bermuda grass and three dead-nettle flowers. This water along with its contents is sprinkled thrice over the child's head and nude body. The procedure is repeated on the fifth, seventh and ninth days after the spots were noticed, but using the same number of pieces of grass and of dead-nettle as there have been days since the apparent onset of the illness. By the ninth day the child usually feels better, but "in one case out of ten" this same procedure has to be followed for the final time on the eleventh day, using 11 flowers and 11 pieces of grass.

After the final treatment the child's body is washed for the first time since the infection was recognized. The bath-water needs to be at body temperature, but if it turns out to be too hot the parent must wait for it to cool and may not on this occasion add cold water to cool it. To this particular bath some turmeric and a nim leaf are added. When the water is ready it is poured over the child's head and body, but the parents do not rub him, wash him with soap, or even touch him. He is not dried with a towel, but made to sit in the house covered with a cloth while incense, turmeric and the dry outer skins of garlic and red onion are burnt together under the cloth. The child sits in this smoke for a minute or two, and only after doing so can he use woollen clothes again.

VARIOLA (*doḍḍamma*)

7.3. Probably no epidemic disease has been commoner or more feared among the Badagas than smallpox (Ouchterlony 1868: 65). In response to it they have developed a method of quarantine that certainly does much to restrict its spread.

The disease is caused by a visitation of the goddess Mariamma. To prevent her coming most Badaga villages celebrate an annual festival in her honour. At one well-known such festival at the temple site of Bokkapu:r chickens, goats and sheep

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758 784 inside the hamlet or not, if calling to a person still in the hamlet must refrain from shouting to him. If it is essential to talk to someone in the hamlet a man turns his head away so that he cannot see that person. The idea underlying these various restrictions (753) seems to be that fragments of diseased skin could blow into the watery crevices or oily surfaces of the healthy body and thereby spread the disease.

• 757 758 At first smallpox is treated as a fever (6. 69), but on the third day after it has been recognized as smallpox the person in attendance, under instruction from a therapist, begins the same water-sprinkling treatment described for the treatment of chicken-pox (7. 2). The water, with dead-nettle flowers and Bermuda grass in it, is sprinkled on the patient on the third, fifth, seventh and ninth days after recognition of the disease, and this continues if necessary on odd-numbered days up to the fifteenth —when 15 flowers and 15 pieces of grass are used. It is believed that no one will be afflicted with smallpox beyond the eighteenth day. As with the treatment of chicken-pox too, the patient is bathed on the last day and then made to sit under a thick cloth where he inhales smoke created by burning incense, turmeric, and the outer skins of red onions and garlic (cf. 7.2).

164 731 Once a case of smallpox has been identified as such, all the inhabitants of that hamlet leave and make homes for themselves in makeshift huts in their fields or perhaps some nearby jungle. But before leaving they quickly fence around their houses and workyards with thorn bushes, as a symbol of their hope that the disease might not follow them. Once in their makeshift homes they receive no visitors from elsewhere and visit no other hamlets, until the disease has disappeared entirely. At that time the hamlet's most influential men get together to decide on a day, called *u:r kuḍua jina*, when everyone will assemble and occupy their hamlet again. A

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one bed, on which there lies a walking-stick for each dead adult, or a smaller stick for a child. In such a funeral the ritual acts and prayers are performed for each male first, and then for each female, in order of generation seniority and not of absolute age at death. If people of different phratries have died in the same hamlet then a separate bed is used for the sticks representing the members of each. Rituals are done for the superior phratry first, unless the dead members of that phratry were visitors from another hamlet. Finally, if some visitors have died there will be two separate beds for the funerals of agnates and affines within the same phratry.

164 [165] **RUBELLA (*kasare*)**

7.4. *Kasare*, probably identifiable with measles, kills scarcely one in a hundred of those who do not follow the restrictions, whereas smallpox kills one in two of those who ignore the treatment procedure. Nonetheless measles should not be taken lightly: as one ironic proverb puts the matter, "Measles does not harm one; the eye is ungrateful [for what it sees]." All the rules for treating smallpox should be followed, except that an infected hamlet is not deserted. The water-sprinkling treatment, begun on the third day after the disease has been recognized by its widely scattered spots, has usually cured it by the seventh day. This is followed by the customary hot bath and inhalation of smoke (7. 2).

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164 **PLAGUE (*ili sattara*)**

7.5. Plague was not uncommon early in this century, and was known to be brought by rats (*Rattus rattus*). It is not much of a problem now however, as a medical missionary has observed:

> [Ketti] village has been harbouring the infection of plague for the last 18 months. But although there were as many as 138 rat falls reported in one week, we only know of four humans attacked. This clearly demonstrates the value of prompt preventative measures [by Government health authorities]. Owing to this incidence of plague fewer people have been coming into Ketti from

[744]

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757 Their treatment for this type of fever[A] is to grind some shoots of velvety patchouli (called *kodangu*), mix it with water, and make the patient swallow it. This mixture is administered first thing in the morning for three consecutive days, and then the fever will abate. (We should add that in a medical survey 164 8.4 per cent of a Badaga sample (N=191) were 143 found to have sickle cells; in other words, a high level of genetic resistance to malaria; Gates 1961: 98.)

7.8 *Ka:male* is a general type of disease which has half-a-dozen varieties. One kind, jaundice, is called *manja ka: male* and is characterized by a yellowness of the body and urine. It attacks fair-complexioned people. It is treated with a juice extracted from ground-up leaves (species unknown), which the patient swallows in the early morning for three days. He is put on a diet of nothing but little millet and buttermilk, and has to avoid salt and chilies. This "cooling" diet is maintained for three days, and on the fourth he resumes his normal food. The patient should lie in a cool place. He can wash his hands, legs and face, but should not bathe during the three days. On each day the yellowness decreases provided he maintains his diet rigidly, and it will disappear by the fourth. On that day the patient takes a hot bath and is then considered cured.

HEPATITS—JAUNDICE (*manja ka:male*)

7.9. A related disease is called *bara ka:male* and is marked by the urine turning red. It attacks dark-skinned people. This occurs because "there is too much heat in the body, which is just like baked bread." The body becomes very lean and black in complexion, for "this disease drinks all the blood." It attacks one slowly, and is usually treated by a specialist.

HEPATITIS (*bara ka: male*)

If a local therapist is uncertain whether the patient has *bara ka:male* she can administer a medicine as "first aid" before going to see the specialist. This medicine can be given for 15 to 20 days and is stopped as soon as the disease clears up. But if

A, [i.e., malaria--Analyst]

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no improvement is seen the patient is then taken to the specialist. A dose of this medicine is made from a quarter tumbler of juice ground from the root of Indian pennywort or a related species (*kudure koa:ku*). It is drunk once a day, early in the morning.

A specialist who lives in the village of Kallatti treats this disease differently. He uses a rod, most probably of iron, the end of which is made red hot. In bad cases he burns men with it on both sides of the head, at a point roughly one-third the distance from the eye to the ear. For female patients he burns the body on particular spots, one of four of them at a time. These are on the abdomen, both above and below the navel. But in some cases both men and women may be burnt on the legs or the hands, or at the back of either shoulder, close to the neck. Butter or, less commonly, clarified butter is then applied to these burns and is kept on them for seven to ten days, until they have healed. For the first five to seven days after the burning a leaf of the same *kudure ko:ku* is laid flat over this butter each day and tied into position. Later the butter can be applied without the leaf.

My therapist-informant did not know the cures for all the different types of *ka:male*. One type, called *u:ta kam:ale*, affects vision and causes the entire body to swell up evenly. Other types prevent women from having further pregnancies. In *kattu ka:male* the only symptom is that the eyesight fails. *Hacce ka:male* affects someone suffering from extreme "cold", generally people of light complexion. The specialist at Kallatti treats all type of *ka:male* with basically the same medicine, made from a tree bark, but he gives different instructions for talking it according to the type of disease.

POLIOMYELITIS (*dodda galy*)

7.10 "Big Wind", though not recognized as epidemic, is one of the most feared of all diseases and the most complicated to cure. The Big Wind cannot be distinguished at its onset from Small Wind (6.71): in both the patient has a fever accompanied

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by headache, nausea, reddening of the eyes, and perhaps some part of the body not functioning normally. The first phase moves into a severer second phase after the eighth day, so that the therapist has to watch closely for symptoms that differentiate it from Small Wind. In the latter illness the fever is "all over the body," whereas in Big Wind it is everywhere except "where the Big Wind struck." If a large area has been "struck," an entire limb may be paralyzed, the other feverish parts of the body are hot and sweaty while the "struck" part is cold.

No one has died of the disease, but if a cure is not effected the patient may be partially paralyzed for the rest of his life. Fortunately it is a very rare disease: my elderly informant, Sithamma, could only remember a single instance of it in her village during the entire century. The patient was a small boy. She brought a male therapist to him from another village; for while a lady therapist could mix the medicine it it usual for a male to rub the medicine all over a male patient and for a female to treat another woman.

Very few know the cure. Of the three men I heard about, one practised over half the Nilgiri Plateau, a second was too old to practise, and a third was not successful with the treatment because of his impure life. From all but the very poor the one still practising therapist accepts presents of any kind, but does not make a formal charge for his services. The patients do also have to give him 1/4 rupee as a "tree-present" and 1 1/4 rupees as "lamp-present" (see below).

The illness is caused by a passing god (*de:va:digo*), the corner of whose cloth has touched a person. The Big Wind starts at the point where the cloth hits him, and then spreads through the body. If the point which was struck is bigger than a rupee coin, it means that the god was angry with the patient, and in that case he cannot be cured although he will still live. According to one therapist the

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medicine could help, especially if administered in a hot climate, but it would not effect a complete cure.

The complexity of this cure arises from the large number of plant species that have to be collected. Most crucial and first to be gathered by the therapist is a piece of grey bark a centimeter thick removed from inside the fork of the Indian kino tree, which grows at the low elevation of about 3,000 ft. near Burliya:r village. The tree generally has only one main stem, but the bark will be more effective if it is taken from a forked tree, and better still if from a three-stemmed tree. Although it is difficult to find this tree it is essential that the therapist get the bark himself. Were some other person to go and get it he would have to perform the rest of the treatment too. The therapist leaves his home around five in the morning as a ritual precaution, because he does not want to meet anyone lest he be asked, "Where are you going? What for?" Such questions would be most inauspicious until he has passed the boundary of his hamlet. Until that point he must be on foot, but thereafter he can use any kind of public transportation.

Having located the tree the therapist first takes a leaf from it and puts it under the tree with a four-anna coin donation on top; this has been given him by the patient. Then he prays to the tree and to the god, asking that the man be cured. In this prayer he must be sure to mention the man by his original name and not by any nickname. Then the therapist cuts some of the bark off with a small knife and puts it in his bag—or formerly in the pocket of his cloak. This he can do at any time before noon. After finishing he takes the coin for himself and also puts some leaves from the same tree into his bag. One such collection of bark suffices for the entire cure of one patient. However, although it is a big trip to get the bark, the therapist cannot bring more than he now needs, as any excess would be useless for any other patient. This is because a later patient's name

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could not have been uttered during the prayer under the tree. If on the other hand the therapist has two patients needing this cure at the same time he can put down the first coin on a leaf, pray for one man, cut some bark for him, and then repeat the process for the second patient.

When the therapist goes to get the bark he takes along another man from the patient's hamlet. The family of the patient bear the expenses of both men. This second person comes to help, in case the therapist is attacked by a tiger, or injures himself, or gets caught by the forest guards—for this tree will be in a Government Reserve Forest. The therapist has to collect 90 plants for the medicine; but he must get the bark before the other 89 ingredients. (A botanist has noted that the bark yields an astringent gum-resin that is 75 per cent tannic acid; Gamble 1922:261). Among the items that are apparently considered necessary are Jamaican switch sorrel leaves, blue-gum leaves, rue leaves, Bermuda grass, cockspur flower, cumin, *hulla majjige*, and some cowdung. Another important thing to collect is some strips of fresh bark from the Indian willow tree. These he will go on collecting until evening, either around Burliya:r or on the way back to the hamlet. The medicine for Big Wind really consists of some 40 specific plants (the identities of which I have not discovered); but altogether 90 plants must be used in it, the remaining 50 being of any varieties available. On the first day of the treatment the therapist may not bring all 90 plants, yet he can still make the medicine with what he already has and use it. On the second day he can add more plants to the same medicine and re-use it. On the third day he must be sure to have all 90 plants in the medicine. This mixture has been boiled though, and it can only be kept for three days. If the treatment goes on for longer than that, then fresh medicine has to be mixed, using more of the bark that was originally brought

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from Burliyar.

The cure for this ailment should preferably begin on the auspicious days Friday, Sunday or Tuesday. If the need is urgent it can also start on a Monday or a Wednesday; but never a Thursday or Saturday. The curing is done every night for at least three days, and it may continue till the fifth, seventh, ninth or eleventh day from the start. Usually the cure is done twice nightly; but if the case is very serious it will be done three times a night, at about 1900 hrs., midnight, and 0500 hrs. The curing can begin right after sunset, but it is generally started later, after supper. It is done at night because the house must remain closed throughout, including all windows.

When the therapist brings all the medical materials he has collected, he hides them somewhere in the bus nearby rather than bring them straight to the patient's house. These materials must not be brought near children, not because the children are impure, but because some of the plants are probably poisonous and the Indian willow is hallucinogenic.

Before he starts in the evening the women clean the house and sprinkle liquid cowdung on the floor. If there is any meat in the house it should be taken out before the cleaning begins. As the sickness is caused by a god, the people present while it is being treated must be pure. For this reason no women are allowed to stay, except those who ceased menstruation at least 12 years before. No children under 18 are allowed to stay either, "because they may be affected by some bad smell," and contract the disease. None of the men present should smoke during the night either. One of them may be allowed to go into the bathroom and urinate or smoke, but only if his need is great.

Only when all the women and children have left for the night does the therapist go and bring the hidden plants into the house. The door is then shut behind him, and must not be opened again

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until they have finished all curing for that night: in fact there must be daylight before the door is unbolted. For this reason the fire must be made so that there is not too much smoke, for the houses have no chimney and windows must not be opened during the night. "No air should come inside and no air should go outside," I was told.

The only food the patient is allowed during each night of the curing is "cooling" food, given him before the cure begins. If he is a non-vegetarian he should not eat meat until he has recovered.

The therapist cleans the pounding-stone and crushes the bark on it with an iron crowbar. The other plants, apart from the strips of Indian willow bark, are then cleaned and pounded with the bark until a paste is formed. This takes an hour or more to complete. The paste is put in a pot with some water and the pounding stone and crowbar are washed with water. This water is added to the pot, which is then put on a fire and boiled continuously for half an hour.

Up to this point (in the curing of one patient, anyway) light had come from the electric lamp. Now the therapist lights all five wicks of the oil lamp; and if no such lamp is to be found in the house one is made out of cowdung, still with the five wicks. It should only burn clarified butter, but if none is in the house then groundnut or some other oil can be used instead. The patient sits in the middle of the inner room, while the therapist puts five four-anna silver coins belonging to the patient's family under the lamp. All of these coins have the head upwards—or nowadays the Ashoka Capital instead.

On the floor near where the mixture has been cooked the therapist smears some cowdung. He puts the lamp on this, with one of the coins under each wick-nozzle. The patient sits there on a sack, and is covered up with four blankets over his head so that no air can get in to him. The first blanket

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•759 is mainly over the head and back, the second over the head and front, the third and fourth over the head and either side of the body. This thick tent-like covering is made airtight by gathering the bottom of all the rugs closely around the patient's feet. He squats with his face towards the east; and when too incapacitated by paralysis to squat on his haunches he may be given a small wooden stool.

The therapist then lifts the hot pot off the fire, holding it in some cloths. He goes to the lamp with it
[782] and says: "O Gods, if this Rangan (or whatever his name is) has done any wrong or any sins, he has presented five four-anna coins as a fine. Please kindly cure him of this illness." He continues holding the pot, without putting it on the floor, as he prays. It is then taken over to the patient, the lid removed, and the rugs at the front of the patient are opened. The pot is put between the patient's legs. He is only wearing his breech-clout; but the therapist tells him to remove that too when he is fully covered. The rugs are closed up tight and the patient breathes and bathes in the vapour for 10 to 15 minutes. This is the most important part of the cure, and the pot must remain under the blankets even though the patient complains of his discomfort. Every few minutes the therapist puts his hand in to feel the patient and pulls it out covered with sweat. Only when the sweat flows off his hand in heavy drips will the cure stop. The blankets are then taken off the patient, who is dripping with sweat and dead tired. He replaces his breach-clout.

Two or three plates are then put on the floor, with a piece of clean cotton cloth over each one. Then using a spoon the therapist scoops some of the solid material out of the pot and puts it on each cloth. He squeezes each cloth to remove the liquid, which he catches in the plate and then pours back into the pot. Then he puts a single thickness of new cotton cloth over the patient's

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entire body, and with the medicine wrapped in one of the other pieces of cloth dabs this all over the body—through the cotton covering it, which is believed to protect the patient from scalding. The medicine is very hot. It is permissible for someone else to help the therapist apply it to the patient. Even the genitalia and the soles of the feet are dabbed in this manner. The dabbing is done more carefully on the side which is paralyzed. After this procedure all the solids in the cloths are put back into the pot.

If the Big Wind does not cure easily the therapist can find the actual place where the god touched the patient. He then presses the solid medicine firmly on that spot as well as dabbing it over the rest of the body. The place is located by grinding sandalwood with water to make a paste and smearing this all over the body. It dries everywhere except where the god has touched the body. In mild cases however the point of touch may be only the size of a pinhead, so that it would not be seen even when the paste was on the body. If the touch was somewhere under the hair it would not be seen by the sandalwood test either; for a woman patient's head cannot be shaved, and a man's is generally not either. Under such circumstances there is nothing to be gained by using the sandalwood test. If the therapist finds and touches the spot where the god touched the body, he can feel that it is very cold. If the spot is on the arm it can affect the "nerve" so that the whole limb is affected.

After the last curing session of the night the therapist rubs some of the solid medicine on the roof of the patient's mouth, after it has been allowed to cool a little; and just before doing that he gives the patient one or two ounces of the liquid from the pot, which he drinks. There is thus no need to rub the solid medicine on his tongue. At this time the therapist may also pour the hot

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come out, the therapist instructs them to put a little spot of cowdung on their brows. Then all of the windows and doors are opened for half an hour or so, to let fresh air in. After this the women and children come back into the house from wherever they have been sleeping. It is alright for them to sleep on the veranda of the actual house where the curing is going on.

During the period of the cure the patient should have no sexual relations, and indulge himself in nothing impure. His diet must contain no meat or liquor whatsoever, little or no salt or chili, but extra milk and curd. He must remain at his house or in front of it, and should not go out of the village until cured. He must not go outside on the veranda or yard without having his head and body fully covered, for fresh air must not touch the body. He should not take a bath until the process of curing has been completed.

757

If the patient is not cured after five successive nights of the treatment, he will never be cured and will remain paralyzed. This failure may be because the treatment was started too late, or else because the patient did something wrong or polluting.

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162 roots or nuts is quite effective. The common South Indian technique of jumping down a well is not possible in a terrain which has virtually no wells (Basel Mission 1853: 42; Rivers 1906: 635). In early times Badagas who wanted to take their lives swallowed the poisonous sap of the giant lobelia. Anyone whose life is ebbing and is thought to have taken poison is occasionally saved by being forced to swallow soapy water: this causes him to vomit. We have already described some other techniques to bring on vomiting in 6.54.

157

The Causes of Death

165 9.7. While the commonest causes of death among the Badagas are well known to public health officials, the number of deaths attributable to each is not apparent from recent statements. There are somewhat reliable figures available on causes of death for the entire rural population in Coonoor and Ootacamund *Taluks* during 1921-1930, and as these are the two sectors of the Nilgiri District where Badagas preponderate rurally the statistics can be viewed as largely referring to this community (see Table 4, based on Madras 1928: 9 and Madras 1933: 8). These statistics express average number of deaths per thousand of the rural population annually.

165 We can also cite figures of questionable reliability for the period 164 1951-1960, but again these figures (Table 5) cover the entire popu- (114) lation of the Nilgiri District, not merely the Badagas. One Nilgiri disease pattern is very clear from Table 5, namely thet the dry hot month of May and the windy monsoon months of June and July have by far the highest death rate, particularly with cases diagnosed as fevers, dysentery, and respiratory ailments. Malaria, although of little concern today, also peaks in those months. The high rate of deaths in childbirth in April, however—if these figures may by trusted—is not indicative of a high birth rate in April, and thus of a high rate of conception during the monsoon month of July, it is instead an accidental feature that characterized 1959 alone (Nambiar 1965: 381). Badagas recognize the nesting season, from the start of Tai (around October-November) till when the fledglings leave the nests (around January) as the main season of human and cattle sicknesses.

114 The reliability of these figures in Tables 4 and 5 is in question 165 because we do not know to what extent deaths occurred in the more remote Nilgiri villages that went unreported or with their

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759 (diagnosticians + exorcists + male specialists + male therapists) = (female therapists + female specialists + midwives).

10.4. Generally when a therapist goes to treat somebody she notes which girls are regularly present and, over a series of cases in that particular village, she slowly teaches these few girls her craft so that they can carry on after her. (This is in fact what K. Sithamma did, and was how she herself learnt from her husband's mother.) Then if a particular trainee is not present when she goes to see a patient, that person is sent for. Unrelated trainees are sometimes unavailable at the time a therapist calls for them, because of household duties. However, a therapist often teaches her sons' wives the art, as these young women are regularly available for training, and morever are eager to please their husband's mother. Since coercion is typically not used, it is a self-selecting process for someone to become a therapist. One hears of no jealousy between therapists; the older ones want the young to learn from them if they are properly motivated. As these younger therapists take over in their villages the old ones can work less, but will still handle the most serious cases and may also be consulted by young therapists or midwives. Even so, there are some who retain certain professional secrets that they refuse to divulge to a younger person until just before they die. These secrets include treatment for the final stage of *ka:male* (7.9), for the final stage of Big Wind (7.10), the plant which can cure a girl's infertility (6.62), and the plant used in the more advanced treatment for a white spot on the conjunctiva (6.36). It is felt that these things should only be passed on by a dying therapist to the person he or she has accepted as the prime successor. More generally, we may note that the professionalization of Badaga medical knowledge is sufficient to pose a barrier to its acquisition by laymen. A therapist sets and maintains her own conditions for selecting and training another generation. and tries to enforce her own standards of practice (Young 1976 : 10). Furthermore, the number of her patients declines as a therapist gets old. This is partly because the younger therapists are taking over, partly because the old person's hands may not be strong enough, for example, to deliver a child, and partly because many of the Badagas are now turning to scientific medicine.

759 763 (759) 759

(894) There is no school or other formal institution for training Badaga therapists, and probably none of them has attended the large

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Ayurvedic colleges that can be found elsewhere in India: Ayurveda is for them an alien medical system, taught in a foreign language beyond the Nilgiris.

There do seem to be some differences between the practices of male and of female therapists. Most obviously, women deal with gynaecology and obstetrics, while men deal with illnesses like Big Wind which involve baring a male patient's genitals. Men also tend to treat skin diseases, defective limbs, deafness, etc., while women tend to concentrate on all the illnesses affecting women and children. Otherwise therapists of either sex do treat patients of either sex, insofar as propriety will allow. The manner of treatment varies somewhat, however, in that male therapists often use spells (*mantras*) in their curing, whereas female therapists rarely if ever do, but instead rely more on herbal medicines.

10.5. When a person contracts an illness he first goes to a therapist in his own or a neighbouring village. If that person cannot effect a cure the patient, perhaps escorted by his therapist, goes to seek the advice of a more distant therapist who is noted for his abilities with an appropriate treatment. Only if this specialist also fails with the patient does he go to a Western or an Ayurvedic doctor, who usually lives in one of the towns and is a non-Badaga. The above is not however an invariable route for the dissatisfied patient, for there are other factors that may guide him differently. Thus if he is closely related to a therapist in a distant village, or a Western-style doctor in town, he may go to that person first. If there are young college-educated people in his family, they may encourage him to go directly to a hospital. Or if the treatment recommended by a Western or Ayurvedic doctor is too costly, a poor person may be obliged to continue his treatment at the hands of a Badaga village therapist; or he may go to a Kurumba specialist instead. There is thus considerable variation in the management of an illness.

There is also some variation in payment practices. It is usual to give some small fee, if only as a courtesy, to all therapists, male and female, for any kind of treatment. Kurumba specialists now expect a substantial 100-200 rupees for a treatment. K. Sithamma however was an example of a therapist who was told by her eldest son that, because of their family's respectable position in society, she should not accept any fees whatever; this was also the case with her mother-in-law and with some others. Sithamma felt

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Other Specialists

759 10.8. Midwives and exorcists are specialists, of course, but they
791 differ in status. The midwife deals in the pollution of blood, and
462 is always a female; the exorcist deals in the danger that spirits
[554] bring, and is invariably a male. It is thus in accordance with Hindu —and Badaga—thinking that the exorcist ranks higher and the midwife lower in esteem than the more general therapist, whether male or female: one handles supernatural power, the other female pollution.

759 Aside from these categories, however, there are other specialists who are known for their ability to handle particular types of malady. In the foregoing chapters we have encountered three instances of such people. One was a woman, the grandmother of my informant M. N. Thesingh. At the time of her death in 1941 she
759 had treated "nearly a thousand cases" of infertility in women, and
•757 found only half-a-dozen of these to be really barren women. For the
842 rest, she prepared a medicine out of three or four different plants. What they were was a secret she took with her to the grave, for she thought that if she taught the medicine to anyone else it would not work well for either of them. She even told her grandson, "You must discover the technique for yourself." He took this to mean that he should spy on her, and once did so. She used to get up at about five in the morning, wash, and then go out to the fields or the forest. On reaching the spot where the necessary plants grew, she looked around till she saw what she wanted; then, with the plant in front of her, she stood facing the east, her palms touching each other as she prayed. Then she sat cross-legged on the ground at that spot and removed a silver ring from the middle finger of the right hand. This she placed on the plant that was in front of her, prayed again, then replaced the ring and picked the plant. She explained later that the ring was an offering to God ; but her grandson failed to discover the identity of the plants.

759 One case that is remembered by him illustrates the assurance
881 with which this woman treated her patients. A 19-year old girl was
554 was brought from a very distant village, her problem being that she had never menstruated (or had she, but was afraid to admit it for fear of being married?). She arrived on Wednesday, but the
[777] therapist (like her daughter-in-law Sithamma) refused to begin new treatment unless on a Tuesday, Friday or Sunday, which are auspicious days; so the girl had to wait.

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cious days; so the girl had to wait. She started working in a field to while away the time. After several hours the therapist called her over and said the girl need not have come as she would be menstruating in a day or two. And at about five on Friday morning she went out of the house and began her first menses. The woman who had come with her was overjoyed, and fell at the therapist's feet in gratitude. The girl bathed and was given clean clothes, then returned to her village. Such tales enhance a reputation greatly; we do not know whether any medicine was involved in getting the desired result. Asked how she could foretell such things, the therapist said that when she went to gather the herbs at dawn and prayed to God, He gave her the information needed. She also got accurate information from her dreams: thus on one occasion she dreamt that part of a wall had fallen in a heavy rainstorm during the night; another time she dreamt there were pigs in the potato field; and yet again she dreamt a particular buffalo was giving birth to a calf. On each of these occasions she woke up, told her grandson, and sent him immediately to check; and each dream was precisely true. In each she could indeed have been stimulated by some actual noise; but the effect was that relatives and neighbours believed in the infallibility of her knowledge, and she was quite famous in the Nilgiris for that.

Another specialist whose work we have described in detail (7.10) is the man who cures Big Wind. As he himself explained, there are three Badagas who know the cure, but he is the only one still able to practise. One of the other men is too old, and the third drank liquor, ate meat and generally led such an impure life that he was not successful with the treatment. The practising therapist in contrast is a vegetarian, and he works over half the Nilgiri Plateau. He never turns away a patient, because it would be sinful to do so, just as he feels it would be sinful to teach the treatment to someone who was not willing to take on every case. This therapist, who was about 80 in 1963, never charges his patients, for he believes the medicine will lose its efficacy if he puts a monetary value on it and on his own labour; but he is willing to accept gifts.

A third specialist whom we have mentioned lives in the village of Kallaṭṭi, and is famed for his treatment of the *ka:male* diseases (7.9). His family have had this speciality for the past three or four generations. He uses the dried bark of a tree that grows on the lower slopes of the Nilgiris, but there are different

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instructions for taking the medicine he prepares from it, depending upon which of the half-dozen related *ka:male* diseases he diagnoses.

10.9. Therapists, both male and female, who treat people are regularly called in to treat animals too, and midwives are often asked to help deliver calves. Kurumbas and Todas are not called in to treat Badaga cattle; (the Todas treat their own). Women therapists never treat cattle for *kundu* (see Appendix), since this requires that the therapists remove his loin-cloth at the time.

It is a common subject for question and objection on the part of Western intellectuals that primitive therapeutic systems probably do no demonstrable good to the patient, unless it be the psychological good of convincing him that he is cared for. This would not, I think, be a charitable view to adopt with Badaga therapeutics, since the many herbal remedies do demonstrably cure very often. Though we can probably accept that therapy has a real role in maintenance of the human organism and in its reproduction, we cannot however speak with so much confidence of the ecological role played by therapists in the preservation of cattle. The prayers and rituals for curing cattle perhaps relieve Badaga anxieties, but they clearly bring no objective benefit to the cattle unless accompanied by effective medicines. Most of the cures and advice offered by therapists do in fact have to be ruled out as ineffective: it is perhaps only with the birth and raising of calves that we can feel confident the therapist makes a genuine contribution to the health of cattle and hence to the supply of Badaga foodstuffs.

Missionary Therapists

10.10. It is important to realize that Badagas have been familiar with selected aspects of Western medical practice since shortly after John Sullivan established the first British settlement on the Nilgiris in 1819 (Hockings 1973). While there is no record of his having offered, or even been qualified to do, any medical treatment for the native population, others did begin to do this soon afterwards. In the 1840s a retired judge, J.G. Casamajor, devoted his declining years to the health and welfare of his Badaga neighbours: "There was a room in [his] Kaity house, a sort of hospital, where Mr. Casamajor for a long time attended every morning from 7-8 o'clock, giving medicines to the fever patients, putting plasters upon the wounds and sores of the poor, giving clothes to the naked [sic!],

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of their experts. I have not been able to analyze individual cases, 128
because the data were not available and I am not qualified to collect or evaluate them. What has been presented here is solely the view of Badaga medicine which some therapists have. It is not a complete emic account, for that would also have to take into consideration information provided by patients and their relatives concerning their views of illness episodes. If I were to develop a full etic account I would distinguish initially between functional disorders, parasitic ailments, nutritional diseases, and mental illness. Such a scientific categorization is cross-cut however, by the emic data, knowledge specific to Badaga culture, which offers such examples as the treatment of a functional disorder by nutritional adjustments, or parasitic ailments considered as supernatural experiences. Only on the subject of mortality was it possible to present an etic, statistical account (9.7-9.8) based on other sources than what Badagas could show and tell me.

In what follows I summarize some of their ideas on the causation and diagnosis of illness, insofar as these are reflected in their actual therapeutic practices. Nowhere in my field investigations, however, did I encounter any real systematization of these principles.

In reviewing Indian folk medicine, Khwaja Hassan (1964: 80) 757 ●
found that a failure to cure does not shake public belief; yet if a remedy works that is no surprise, because it was expected to. If the remedy does fail, something else is tried on the basis of a different diagnosis; but while this is true for Badagas they have a proverb counselling patience first: "Wait and see the effect of that medicine..." Another one asks: "Immediately after having drunk medicine, is it possible to get up and stand?" If the patient dies, they do not think that the treatment was inappropriate but that he was beyond help. Such attitudes may still be heard from most Badagas.

On this subject of diagnosis Hughes suggests that, "Diagnostic categories, however crude, serve the purpose of directing sustained attention and reflection to the appearance of disease syndromes, thus providing empirical data for inferences about the probable effectiveness of one type of treatment or another. Undoubtedly this constitutes a kind of inadvertent experimental approach." (Hughes 1968: 91) In a society that practices neither surgery nor postmortems other avenues for observation are closed. [752] [763]

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It is true that different Badaga therapists may give varying diagnoses of a complaint, and the recommended treatment will vary accordingly. A patient should follow the advice of the superior and most influential among the therapists he consults. A general Badaga attitude towards "experts" is expressed in a proverb: "It is half bad if you do something you know about, entirely bad if you do it when you are ignorant." The point is that a knowledgeable person will at least know what risks he is taking: mistakes are tolerated, blunders are not, as one informant put it. An incompetent therapist or midwife may be cut down to size with another proverb: "By claiming to have qualifications he became king; by spoiling it he became a poor man."

10.15. In ancient Sanskrit texts (Charaka Samhita I, etc.) it is stated that there are three aspects to man: behaviour, mind, and health (*pittam*). Although Badaga therapists have not been able to read such texts, they do believe there are three arteries in the wrist, one controlling each of these factors. These arteries pulsate, and one can tell whether they are "good" or not. In one small village of about three hundred people where I worked there were four men who had this diagnostic skill, but none of them ever practised as a therapist. I was told that such Badagas can check the pulse, on the right wrist of a male and the left of a female, to determine which aspect of the body is upset. Its associated artery will be pulsing irregularly. Athough being a diagnostician seems to be viewed as an informal and unimportant role by Badagas, it is clear that these men actually play a crucial part in deciding whether or not a person needs some therapeutic treatment; and to this extent there is a male surveillance over the (mainly female) therapists and their work. In the village just mentioned, for instance, it is worth noting that one of the four diagnosticians was the son of the only therapist there *and* was also the traditional (though inactive) headman. The other three men commanded a certain amount of respect too because of their social positions.

10.16. Dreams are not considered to cause illness, but they are certainly diagnostic of problems to come and are treated as omens by the Badagas. So if one dreams about snakes, it means there is something impure and thus threatening in the house. If one dreams of eating honey, he will get cold and become ill. If a woman dreams of eating fruit, especially oranges, she will become pregnant before the next menses. If she dreams of losing her nose-